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So/Cal's All-Purpose Peninsula

**Pacific Live-Aboard Vacation Guide**

### **THIS ISSUE PD REVIEWS:**

- Dive Alert Surface Signaler
- SeaQuest's Explorer BC
- Sherwood's Compact 80 Tank





A close-up, profile view of a diver's head and shoulders. The diver is wearing a blue wetsuit and a black Sherwood Maximus regulator. The regulator has a blue 'M' logo on the side. The diver is holding the regulator in their mouth, and a black hose is connected to it. The background is a bright blue sky with some white clouds. The overall image has a torn paper effect along the right edge.

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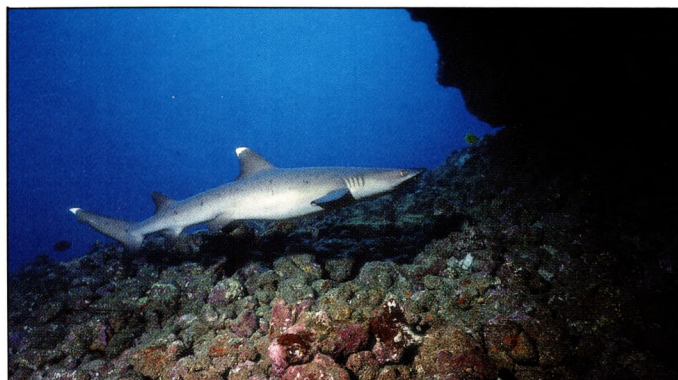
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# DIVER

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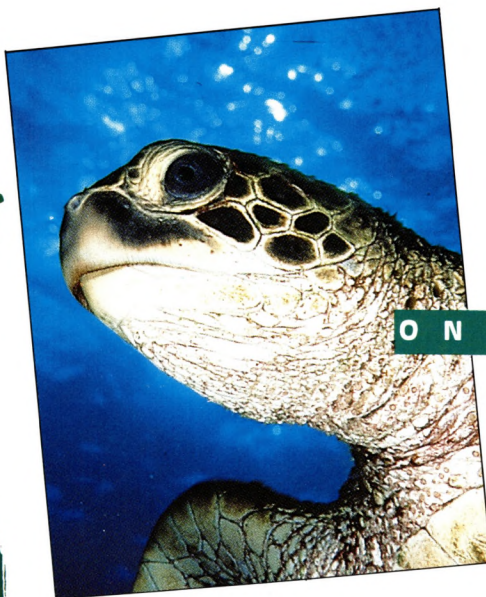
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A friendly green sea turtle checks out divers visiting the Kona Coast on the Big Island of Hawaii. Photo was taken by Clay Wiseman, former captain of the Kona Aggressor and current captain of the Belize Aggressor.







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## No Time for Summer Memories

I can't believe how fast this year has passed. Here we are in the final months of 1990, with some great diving memories behind us. But the coming of winter doesn't mean we have to fold up our diving gear until March rolls around again. Indeed, some of the best diving of the year can be enjoyed in the cooler months of November through February, both along the Pacific coast and on out into the warmer waters of Hawaii and the South Pacific. And in this issue we'll show you what we mean.

To start, Canadian Jett Britnell takes us to British Columbia for a dive through the Nakwakto Rapids, a narrow channel known to have the fastest current in the world. It's a wild and woolly dive where you keep one eye on your watch while the other absorbs the breathtaking underwater scenery in this current-swept diving outpost.

From drysuit diving in British Columbia we leap over to partake in some skinsuit diving in Hawaii. Everybody knows that Hawaii is a great vacation dive destination for beginning and intermediate divers, but did you know that the Hawaiian Islands also have some pretty good advanced diving sites? They surely do, and Steve Rosenberg reveals them in an article highlighting Hawaii's 12 best advanced dives, ranging from dark lava caverns to diving with mantas and sharks to exploring the deep walls of Hawaii's most remote islands. It's a dose of adventure guaranteed to get your blood boiling.

Using Hawaii as a jumping off point, Darren and Stacey Douglass tour the Pacific Rim in their article focusing on 11 of the Pacific's top live-aboards. As it turns out, there are plenty of excellent live-aboards operating from Canada to Mexico and on out into the South Pacific that cater to divers who want to experience top-notch diving and first-class shipboard accommodations. All you have to do is pick your dive destination, and chances are there will be a live-aboard there waiting for you.

After our jaunt around the Pacific Rim we return to Southern California to check out a couple of prime local dive sites where convenience is the order of the day. Joe Belanger takes us on a dive trip to the Palos Verdes Peninsula, a long-time favorite among hunters, underwater photographers and wreck divers. Drop a boat in the water at Redondo Beach's King Harbor and you can be at the diving grounds in a matter of minutes.

Down the coast a ways, Scott Sansenbach drops his boat in the water at Newport Harbor and in a few minutes he arrives at Crystal Cove State Park. Located between Newport Beach and Laguna Beach, for years Crystal Cove was a ragged stretch of coastline with steep cliffs and goat trails leading down to the beach. But times have changed, and today Crystal Cove has paved parking lots and beach access ramps as well as showers and restroom facilities. Underwater, the area is a patchwork of reefs and sand flats that are great for hunters and photographers alike. In fact, the only thing that Crystal Cove doesn't have are crowds, which still seem to be concentrated just a couple miles down the road in Laguna Beach. All the better for Crystal Cove divers.

Finally, PD subscriber Bill Rhinehart writes in with an interesting account of an encounter he had with the Department of Fish & Game. Unjustly cited for bagging what was said to be an undersized abalone, Bill went to court, won his case, and lost a bundle of money in the process. It's a somewhat frustrating example of what can sometimes happen when you stand up to the System.

Howard Hall's popular Photography column is conspicuously absent from this issue due to his outstanding work on his latest film *Seasons of the Sea*. The film aired on PBS' Nature series last September 30 and was immediately lauded as the finest work on California's underwater life ever made. Way to go, Howard!

On the other hand, "Baja John" Francis' S.O.B. column is conspicuously present in this issue. Because of some of his classic "Francis foot-in-the-mouth comments," Baja John has been recalled to California where we can keep an eye on him. For the time being, he'll be offering us his twisted view of the California diving scene.

That's just a taste of what you'll find in this information-packed issue, so sit down, get comfortable and turn the page. We hope you enjoy the magazine, and, as always, we enjoy any comments you may have. Drop us a line and let us know what you think.

By the way, don't forget PACIFIC DIVER's "Dive Boat Days" scheduled for November 25 and January 12. (For more information, turn to page three or refer to the story in Divers Update.) Maybe we'll cross paths out on the *Golden Doubloon*.

John Brumm  
Editor

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# DIVER

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## Ethics of Dolphin Quest Swim Program Challenged

This letter concerns the article in your September/October 1990 issue entitled "Swimming with Dolphins." The article presented an unbiased view of the dolphin swim program controversy and left it up to readers to make their own decisions regarding the ethics of these programs. Enclosed is some information that I feel will help your readers make their decisions.

The Hyatt Regency Waikoloa promotes Dolphin Quest, with its price tag of \$55 per half hour, as being "dedicated to the improvement of dolphins' conditions in the wild and in captivity," and "managed by a renowned veterinary specialist..."

Veterinarian Dr. Jay Sweeney is one of the two owners/operators of the program. Says Sweeney, who makes his living capturing dolphins for amusement parks and tourist attractions, "My name is controversial because I'm out there assuring good health to the animals wherever they may be."

Among the incidents that have made Sweeney's name controversial:

- \* Since 1971 Sweeney has captured marine mammals for display and amusement parks worldwide. Through Dolphin Services International, he "will deliver to your size and sex specifications; 90-day replacement guarantee."

- \* March and April 1989: Two Atlantic bottlenose dolphins die at Dolphin Quest, prompting a federal investigation.

- \* April 1989: Sweeney brought a pregnant Pseudorca from Japan to a Texas marine park. She aborted within days and died about a month later.

- \* April 1989: Sweeney supervised the controversial transfer of two Risso's dolphins from Japan to a U.S. Navy facility in Hawaii.

- \* August 1989: Sweeney supervised the hurried nighttime transfer of two just-captured belugas from Alaska to a Washington zoo, sidestepping a judge's ruling which could have resulted in the whales' release the next morning.

- \* February 1990: An Atlantic bottlenose dolphin that Sweeney had captured for the National Aquarium less than three months earlier died at Hawks Cay Resort in Florida, just a week after Sweeney assured the press that the dolphin was fine.

- \* Sweeney's partner Gene Hamilton boasts of having caught 500 to 600 dolphins. The going rate is now between \$10,000 and \$20,000 per dolphin.

For the past six summers I have swam

with dolphins in the wild and I am currently producing a documentary on the status of dolphins in captivity and in the wild. I would be happy to provide any further information concerning dolphins to your publication and your readers.

Rick Moore  
Cupertino, CA

## Protector of Mankind Defends His Right To Run Our Lives

Thank you for taking the time to read and comment on my article (Editorial, September/October 1990). Unfortunately, your argument against currency requirements is the same one that was made when certification was first proposed. Fortunately though, safety and not ego was made the primary concern of the diving industry and certification is now required. Ultimately, this will also lead to recertification — a necessity.

In your editorial you wrote "That's why this whole idea of 'mandatory' anything seems so ridiculous." Come on; what is ridiculous is the thought of dismantling the current certification process, as your quote suggests. If a person gets an open water certification and then does not dive for five years, this person needs to be retrained, recertified. To disagree is to say that we don't need certification in the first place. Diving is inherently dangerous. There needs to be some standard of training.

In researching my article I randomly called instructors across the country. They were unanimously in favor of recertification. In fact, after a year-long study, NAUI's membership recommended that a currency requirement be made mandatory, though the board decided not to listen to its membership. This may come as quite a shock to you, but the truth is, professional instructors believe that divers need this protection.

Rick Bursky  
A Protector of Mankind  
North Hollywood, CA

*To suggest that September/October's editorial advocated dismantling the current certification process is absurd. Of course we need our certification programs; what we're taking exception to is the prospect of mandatory REcertification programs.*

*You state that professional instructors believe that divers need the "protection" of recertification. While it's not hard to guess why instructors might feel this way, the real question remains: Do divers feel they need this protection?*

*I'll say it again: if a certified diver feels he*

*or she is in need of some refresher training, then he or she should by all means take advantage of one of the refresher courses made available by dive stores nationwide. But that's their call, not yours. You mentioned ego. It's the ultimate display of ego for you to think that you know what's best for the rest of us better than we do. Who the hell are you, anyway? — Ed.*

## Reader Offers Up a New Name for Magazine: Pacific Hunter?

It's hard to understand what Richard Herrmann (Letters, September/October 1990) means when he compliments you on your "low-key" coverage of spearfishing, especially in light of the cover of that same issue. The cover story is a guide to killing lobsters, and two other stories are directly related to the killing of underwater life.

Perhaps you should be more honest with your readers and change the name of the magazine to Pacific Hunter.

David Yuhas  
Pacifica, CA

## King Kamehameha's Reputation for Service is no Exaggeration

Having been recently certified, my husband and I decided to take a diving vacation to Hawaii this past summer. Our only problem was, we didn't know how to plan it.

Your July/August 1990 issue solved that problem with the article "A Guaranteed Good Time." We called Liz at King Kamehameha Divers. She answered all of our questions and made arrangements for everything — air fare, hotel, rental car and diving.

We had an incredible vacation. The diving was fantastic. I can't say enough about Richard, Liz and the whole King Kam crew! Your article did not exaggerate about the services this facility gives.

Thanks for continually informing us about wonderful facilities such as King Kamehameha Divers, and keep up the good work.

Kari R. Souza  
Phelan, CA

## Soviet Divers Looking for a Little Help from Some Friends

In the May/June 1989 issue of PACIFIC DIVER a letter was published from Valeri B. Darkin of Vladivostok in which he mentioned the difficulty of obtaining current sport diving information in Russia. As you may be aware, physicians in the U.S. send tons of medical books to their colleagues in the Soviet Union every



## LETTERS

month. Following their example, I cleaned out my diving library and bought many new books to send to Valeri and his fellow divers. Now I would like to respectfully request that your readers and local dive clubs give some thought to doing the same. Any diving books, magazines and newspapers would be welcomed and will be distributed to member clubs of the newly formed Federation of Underwater Activities which reportedly has over 50,000 members. In Valeri's words they have "lots of enthusiasm and not much else!"

So if you're not going to read that book or magazine again and want to send it to where it will be deeply appreciated (no pun intended), please mail it soon. Just ask the postal clerk for the surface book rate to Moscow, USSR. Fill out the little green customs declaration form to indicate BOOK, GIFT and NO VALUE. The address is Mr. Valeri B. Darkin, Chief Diver; Institute of Marine Biology; Vladivostok, 690032 USSR.

Ralph Steele  
Ojai, CA

### Don't Beat Around the Bush, Leo. Tell us What You *Really* Think!

Tell all those day-glow yuppie pinhead city-slicker fat stupid drunken fair-weather marlin-fishing s.o.b. slobs to get off Baja John's back. As far as most charter boat captains releasing marlins after they're caught — big deal! Those fish are all played out and drop to the bottom like so many empty beer cans tossed overboard from those high-falootin pimp barges wallowing around Cabo.

And I sure as hell hope you don't listen to every slum lord from Riverside who writes in criticizing your magazine because someone actually tells the truth about the Great White Hunters polluting Mexican waters. Mealy-mouthed baloney about "natives" accepting slaughtered marlins is like saying that the buffalo "chasseurs" of the 19th century were welcomed by the plains Indians when the herds were shot down and run off.

Jeez!

By the way, give Baja John a raise so he can buy a new BC and trash that old horse collar.

Leo G. Bigley  
San Mateo, CA

Whoaa! — Ed.

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▲ Voracious sunflower sea stars devour a Pacific octopus that died in its den after hatching its young. Taken in 80 feet of water in Trincomali Channel, British Columbia, with a Nikonos V set on manual and operating at f5.6 for 1/90, SB103 strobe at full power and a 15mm lens. Photo by Michael Verber of Coupeville, Washington.

▼ A camouflaged Pacific octopus forages for food among red sea urchins on the rocky ledges of Hussar Point, Browning Pass, British Columbia. Photo by Judi Brooks of Bellevue, Washington.



▲ A solitary sea otter kicks back on the surface in a clump of kelp right outside the Monterey marina. Photo by Joan Wayne of Napa, California.



▲ An island kelpfish lies on a frond of kelp at the Coronado Islands. Photo by Brian Johnson of Temecula, California.



**if** you've taken photographs that you feel represent the diving lifestyle, and you'd like to share them with other divers, we invite you to submit them to PACIFIC DIVER for possible publication.



# Pictorial

A sunflower sea star probes a crevice for prey at Point Lobos Marine Reserve.  
Photo by David Yuhas of Pacifica, California.



A juvenile Puget Sound king crab seems to be glaring at the camera at its Plumper Pass lair near Stubbs Island in British Columbia. Photo by Dianne Rodgers of Bambridge Island, Washington.



This jellyfish was frozen on film at the Point Lobos Marine Reserve, just south of Monterey. Photo by Michael Preovolos of Vallejo, California.



A stalk of pink hydra coral sits alone on a colorful outcrop in the waters off Carmel Bay. Photo by Kelly Mitchell of Long Beach, California.

If your photo is selected, it will appear on these pages with a photo credit (\$25 will be awarded for selected photographs). To have your photos considered for publication, send your color transparencies to Editor, PACIFIC DIVER Magazine, P.O. Box 6218, Huntington Beach, CA 92615, with a sentence or two describing each shot, where it was taken, and what equipment was used. Photos must be submitted with a self-addressed stamped envelope to ensure their return.



# Pictorial



▲ Trumpetfish tries to disappear among gorgonian coral at Grand Cayman. Taken with a Nikonos V and a 15mm lens. Photo by Hal Beral of Irvine, California.



▲ California kelp set against a mirrored surface during a calm clear-water day of diving. Photo by Suzan Meldonian of Coral Gables, Florida.



Camera at the ready, Diane Fink searches for photo subjects in a kelp forest at Santa Barbara Island. Taken with a Nikonos V, Fuji Velvia, a 20mm lens and dual MCD strobes, operating at 1/60 of a second at f8 on manual mode. Photo by Preston Kuntz of Alhambra, California.



▲ Whoaa! Out of the gloom a hammerhead shark approaches to check out the divers exploring the waters off Cocos Island, Costa Rica. Photo by Terry Schuller of Port Hueneme, California.



## DIVERS UPDATE

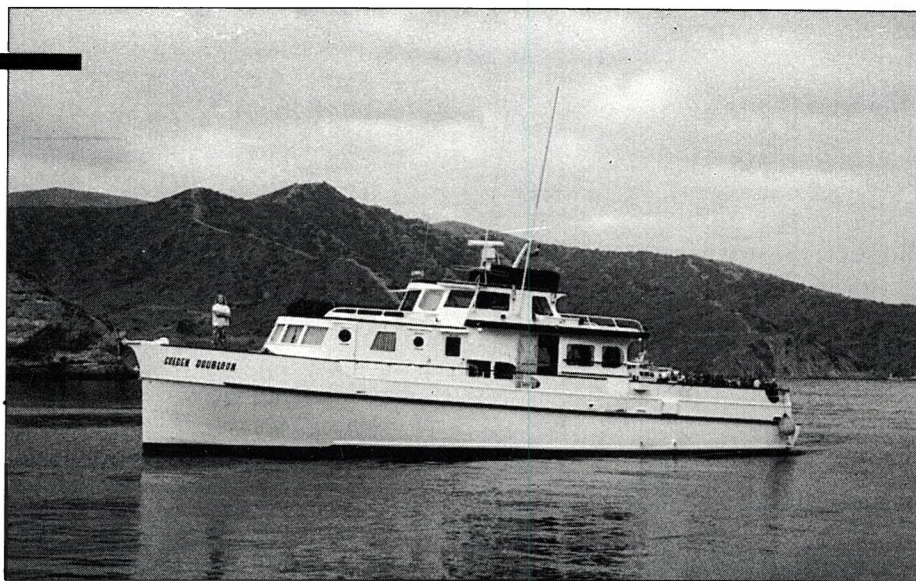
### Join PACIFIC DIVER on the *Golden Doubloon* for Some Catalina Diving

PACIFIC DIVER and TABATA USA are heading over to Catalina to kick back and enjoy some diving aboard the *Golden Doubloon*, and we'd like to invite you to join us!

The *Doubloon* will leave 22nd Street Landing in San Pedro at 6:30 a.m. on the scheduled days and return to the docks at about 9 p.m. There will be three dives made at three different dive sites, and then the *Doubloon* will drop anchor in a quiet cove for an end-of-day barbecue.

The day of diving costs \$55 and includes air fills, a ham and egg breakfast, a steak dinner complete with baked potato, salad and garlic bread, and a free PACIFIC DIVER T-shirt. Plus, TABATA plans to give away a mask, snorkel and a pair of fins to lucky raffle ticket holders. It should be great fun and we hope you can make it!

Dives are scheduled for Sunday,



November 25, 1990, and Saturday, January 12, 1991. For more information or for credit card reservations call (714) 361-9765, or send your check to PACIFIC DIVER Magazine, 3197-E Airport Loop Dr., Costa Mesa, CA 92626. Please indi-

cate the date of the dive trip you'd like to reserve space on, and include your phone number and T-shirt size.

Space is limited to 30 divers per trip, so get your reservation in soon, and let's do some diving!

### *Silver Prince* Offers Monterey "Mini-Vacations"

The dive boat *Silver Prince* is offering a Monterey "Mini Vacation" package tailored expressly for divers.

Visiting divers can enjoy four days and three nights in a first-class hotel on the Monterey Peninsula, three days of boat diving aboard the *Silver Prince*, unlimited shore diving and visits to the Monterey Aquarium, Carmel by the Sea and Point Lobos State Wildlife Preserve, all for about \$545 per diver, double occupancy.

While out boat diving, the *Silver Prince* will take divers to the kelp beds along the rocky shores of Monterey and Carmel where there are sea otters, harbor seals and about 30 species of rockfish, as well as countless numbers of colorful sponges, nudibranchs and anemones.

For more information on Monterey's "Mini Vacation" contact Lyn May at Twin Otters, Inc., Box 8744, Monterey, CA 93943; (408) 394-4235.

### Thailand's Tuna Processors Decide to Ban All Drift Net-Caught Tuna

Thai tuna processors unanimously announced that they are going to voluntarily end the purchase of all tuna caught in high seas drift nets to reflect their country's commitment to the safety and conservation of dolphins and other marine species.

The announcement was made by Mongol Saraneeyatham, president of the

Thai Food Processors' Association. The association represents all of the 20 tuna processors in Thailand.

In making the announcement, Mr. Saraneeyatham said there will be a phase-out purchasing period of up to six months due to contractual commitments that Thai processors already have with suppliers and inventory clearance thereafter.

The association also announced its full and unconditional support for the December 1989 United Nations resolution

that calls for high seas drift net fishing to be stopped by July 1991 in the South Pacific Region, and throughout the world by June 30, 1992.

The announcement strengthens Thailand's previous dolphin-safe tuna policy that was instituted earlier in the year to address the nation's concern over dolphin safety. (The first policy announcement, made last April, said Thailand would not purchase, process or sell any tuna caught in association with dolphins.) *Continued*

### Who Says PADI's a "Mickey Mouse" Operation?

PADI instructor Wayne Rankin's students are an intrepid lot. They commonly encounter giant sea bass, sharks, squid, whales, sunken galleons, treasure, polar ice, mermaids and sea serpents — and all this during their pool training.

Rankin's students are employees of Disneyland, and their training pool is the site of Disneyland's famous submarine ride. Rankin is responsible for training the 20 or so men and women who dive full- and part-time maintaining Disneyland's numerous water rides. Divers are trained up through the PADI Rescue Diver level and all have completed Medic First Aid courses to qualify for diver positions at the amusement park.

Learning to dive in the Disneyland submarine pool might sound like fun, but it does have one drawback; Rankin can only hold classes when the park is closed, so we're talking about dive classes between 1



a.m. and 7 a.m. And you complain about early morning dive boat departures?



## DIVERS UPDATE

### Two New Diving Series Scheduled for the Discovery Channel

Sport diving has finally made it to prime time cable!

Two diving series have been slated to air on The Discovery Channel. The U.S. premiere of *Adventures in Diving* and the highly acclaimed *Dive to Adventure* will air Thursdays at 9:30 p.m. and repeat on Fridays at 12:30 a.m.

Thirteen episodes of *Adventures in Diving*, which started October 4, will fill

the Thursday time slots first. Then *Dive to Adventure* will follow with its own 13 episodes beginning January 8, 1991. Both series were produced by Jack McKenney Productions.

### Emerald Seas Dive Center Moves To Friday Harbor

Tom Hemphill has moved his Emerald Seas Dive Center from Orcas Island to Friday Harbor on San Juan Island, Washington. The Emerald Seas Dive Center offers rentals, repairs, air fills and six dive boats. For more information, contact

Emerald Seas Dive Center, P.O. Box 476, Friday Harbor, WA 98250; (206) 378-2772.

### NOAA Releases Impact Plan for Monterey Bay Sanctuary

Last summer the National Oceanic and Atmospheric Administration (NOAA) released a Draft Environmental Impact Statement and Management Plan for the Monterey Bay National Marine Sanctuary. The draft release was delayed for months pending President Bush's offshore oil leasing announcement. A copy of the draft can be obtained from Mark Murray-Brown at NOAA at (202) 673-5126.

### Drysuit Diving Workshop Begins a New Series at CSULB

Due to the increased use of drysuits in Southern California and the strong need for specialized training, the CSU Ocean Studies Institute will kick off a series of diver education and safety seminars/workshops with a repeat of last year's "Drysuit Diving Workshop." The workshop will take place on December 1 from 8 a.m. to 4 p.m. on the CSU, Long Beach, campus.

Steven Barsky, author of *The Drysuit Diving Manual*, will once again present this popular program with in-depth coverage of safety considerations when using a drysuit; how to select the drysuit that best meets your needs; drysuit maintenance and repair; the durability and reliability of various kinds of suits; and overall techniques for diving with a drysuit plus updates on the newest drysuit products and procedures.


Several drysuit manufacturers will be on hand to provide suits for a "get wet" afternoon at the pool. At this in-water session, you'll have the opportunity to actually practice some drysuit diving techniques and compare different types of suits for yourself.

This workshop is the first in a series of diver education seminars/workshops that will be offered by the Ocean Studies Institute in the coming months. Other topics will include "Careers in Diving," "Marine Biology for Recreational Divers," and "Dive Accident Management."

For more information about any of these programs, please call (213) 985-7588 or 985-5343, or write to the Diving Safety Workshops, Ocean Studies Institute, CSULB, Long Beach, CA 90840-3702.

### Cen Cal Seeks Help to Finance Marine Conservation Defense Fund

Here's an excellent opportunity to get involved in a worthy cause with a worthy organization. The Central California Council of Diving Clubs, or Cen Cal, is





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<b>Bob Brandeberry</b> San Mateo, CA (415) 341-1957	<b>Jed Livingstone</b> Anaheim, CA (714) 999-0539
<b>Harry Ellis</b> Honolulu, HI (808) 422-7462	<b>Hicks' NAUI College</b> Newport Beach, CA (800) 423-7095

**1990 Scheduled ITC Programs**

<b>November</b> Federal Way, WA; Monterey, CA
<b>December</b> Hong Kong





## DIVERS UPDATE

making a special appeal for funds to finance a Marine Conservation Defense Fund. According to Cen Cal, marine conservation issues facing the diving community include commercial abalone laws, offshore oil drilling, sea otter translocation and range expansion, abalone poaching, Farallon Islands access, the Monterey Bay National Marine Sanctuary, gill nets, and many others.

Cen Cal is appealing to divers as well as to the diving industry for monetary support to help with its ventures. In the mid-'80s Cen Cal sued the City of Pacific Grove to retain access for all divers across Lovers Point Cove, and got it. The organization also made a successful appeal for funds to support this litigation, which created the Beach Access Legal Defense Fund.

Cen Cal is looking for monetary support, but could also use more people help. So don't be shy about volunteering your time or your money. For more information, contact Cen Cal conservation director Paul Turnbull at (415) 538-9508. Cen Cal is a not for profit, tax exempt organization.

### Alford & Barkowski Win Dive 'N Surf's 14th Annual Lobster Mobster Contest

Last October 3rd over 400 certified divers braved the cold dark ocean as they leapt into the 14th Annual Dive 'N Surf Lobster Mobster Contest.

At one minute after midnight contestants hit the water from shore, private boats and charter dive boats all along the coast of Southern California as well as off the islands of Catalina, San Nicolas and San Clemente.

By 9 a.m. it was all over. Stephen Alford (featured in PACIFIC DIVER's guide to lobster diving in the September/October 1990 issue) won first prize in the Largest Single Lobster category with a 8.51-pound lobster, and Frank Barkowski took first place in the Most Total Pounds category with a catch weighing in at 23.87 pounds.

### Pacific Northwest Citizen's Group Focuses on Underwater Habitats

The Underwater Society of the Pacific Northwest (USPN) is a new citizen's involvement group dedicated to collecting and sharing useful information about regional underwater habitats. As part of a Puget Sound Public Involvement and Education Fund, USPN was awarded an \$8,100 grant to survey recreational divers and dive boat operators on their favorite dive sites, the underwater activities they normally pursued and the cumulative

impact of their diving activities. Other projects include a Northern Puget Sound sanctuary study. For information on participating in USPN projects, write the USPN at P.O. Box 418, Seahurst, WA 98062.

### L.A. County UIA Forms Committee to Examine Diving Accidents

The Los Angeles County Underwater Instructor's Association (UIA) has formed

a five-county accident committee consisting of members from Santa Barbara, Ventura, Los Angeles, Orange and San Diego counties. Members of this forum will discuss diving accidents, their treatments and the general trends that might have contributed to the accidents. Members of various county hyperbaric facilities will be on hand, as will some rescue teams and certification agencies. Results will be compiled and published in

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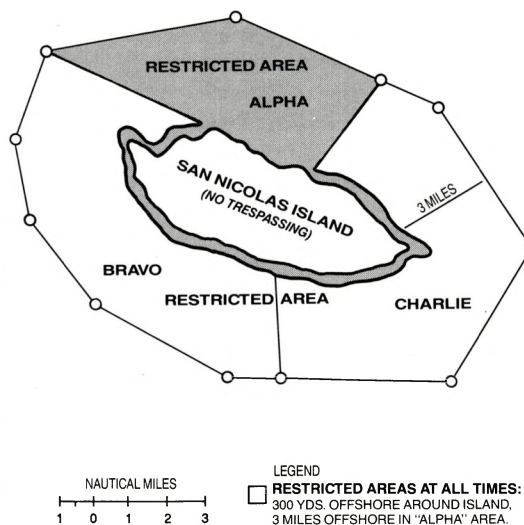


## DIVERS UPDATE

an annual Underwater Safety Report. For more information, contact UIA president Jennifer King at (213) 548-4183, or committee chairman Joe Stich at (714) 337-4695.

### Divers Update on San Nicolas Island's Accessibility

ATTENTION all you divers who are planning on heading for San Nick! Follow-



ing is the latest ruling on diving access at the popular sport diving island, submitted by Perry Ferguson of the Channel Islands Council of Divers.

1. Alpha Area is closed at all times to non-military vessels.

2. Bravo and Charlie areas are open to fishing operations except when specifically closed by the commander of the Pacific Missile Test Center. Check the commanding officer (Attn. Code 6500, Naval Air Station, Point Mugu, CA 93042) before leaving for the island.

3. All boats are required to stay at least 300 yards from shore, and landing on shore is prohibited at all times unless as a result of an emergency.

4. Get permission before going to San Nicolas Island, then follow directions once you're there. There are three numbers available to determine availability: (805) 989-1470 for present-day information; (805) 989-7887 for updated information; and (805) 989-8841 if you can't get through at the above numbers.

Not long ago San Nicolas Island was totally off limits to all divers, boaters and fishermen. Through much work and dialogue, the waters surrounding the island were opened on a restrictive basis. Let's not jeopardize this privilege; please obey all rules and regulations.

### Hawaii's TORCH Seeks to Create Statewide Habitat Enhancement Program

The Ocean Resource Council of Hawaii (TORCH) has recently announced its intent to coordinate with ocean resource users and state agencies to create a statewide habitat enhancement program. TORCH has appointed Kim Roberts of Lahaina Divers on Maui to chair the project.

The goal of the organization is to assist local divers and dive operations in putting together projects similar to the very successful *Mahi* project on the island of Oahu (the *Mahi* is a shipwreck that was sunk off Waianae Harbor specifically for recreational diving). The habitat enhancement program seeks to identify appropriate sites in Hawaiian waters and then build artificial reefs or place wrecks at these sites. Similar projects conducted along many mainland coastal states have proven that marine life adapts easily to such artificial habitats.

TORCH's plan is long-range in scope. The support from local divers and dive shop operators has had a strong influence in the planning of the program, and continued support is critical to its success. For more information contact Kim Roberts at Lahaina Divers, (800) 657-7885. □



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# *Far From the Maddening Crowds*

*Only a few miles north of Laguna Beach, Crystal Cove State Park offers unexplored territory for beach and boat divers alike.*

*Article and photos by Scott Sansenbach*

**I**f you've been looking for a good Orange County beach dive site but you're tired of fighting the crowds in Laguna, then Crystal Cove State Park might be just the spot for you. Crystal Cove has abundant parking, full restroom and shower facilities and close to 1,200 underwater acres for you to explore in relative solitude.

Back before the state of California purchased the three-mile stretch of coastline between Newport Beach and Laguna Beach, beach diving here was not so much a pleasant aquatic experience as it was a test of strength and endurance. You had to park up on Pacific Coast Highway, then hike with full dive gear through tumbleweed fields, and then climb down goat paths along the cliffs to get to the beach. And then at the end of the day you had to climb out again!

But today it's different. Today there are spacious lots set aside for off street parking, there are paved access ramps, there are changing rooms and freshwater showers, and park rangers and lifeguards are on duty.

The Crystal Cove State Park encompasses all coastline areas from Treasure Cove at the southern border of Corona del Mar to Abalone Point at the northern border of Laguna Beach, then extends seaward to a depth of 120 feet. In addition to the beach areas, a large section of the surrounding hills has been set aside as park land. These back-country areas are popular for bird watching, hiking, environmental camping and mountain biking.

*Continued*



## Once known for its spearfishing, Crystal Cove is now a great spot for wide-angle photography.



### PRIME AREA FOR BUGS AND BOTTOMFISH

The water off Crystal Cove State Park was once known for its spearfishing. In the '60s, many a world record fish was bagged here, but years of fishing pressure and the loss of the once abundant kelp forests have diminished the prospects for spearfishermen.

But while the spearfishing can't compare with the old days, you can still bag sheepshead and calico bass in fair numbers. And in the late summer the sandy areas are known as good hunting grounds for halibut.

Crystal Cove State Park is one of the

most productive areas in Orange County for lobster hunting. The best hunting is at night along the well-developed offshore reefs. The area tends to be hit pretty heavily by commercial lobster trappers, so the best prospects are early in the season. However, Crystal Cove State Park parking lots close at sunset, so if you want to engage in a little night hunting you have to use a private boat. Keep in mind that Crystal Cove is a marine life refuge, so only game fish and lobsters may be taken here (not scallops, crabs, or abalone).

Crystal Cove State Park is also a great place to partake in underwater photography. The reefs are loaded with nudi-

### Crystal Cove State Park Dive Facts

**HOW TO GET THERE:** The park is located on Pacific Coast Highway between Laguna Beach and Corona del Mar. Coming from the north, take the San Diego Freeway (southbound) to the Corona del Mar Freeway (73) to Pacific Coast Highway, and turn left. Coming from the south, take the San Diego Freeway (northbound) to the Laguna Canyon Highway (133) to Pacific Coast Highway and turn right. Proceed to 8471 Pacific Coast Highway. The Reef Point parking area has the most convenient beach access.

**GENERAL CONDITIONS:** Mixed sand and rock entries. The area is generally exposed to swells. Alternate dive sites should be selected during periods of heavy swells. Average visibility is 15 feet but occasionally reaches 40 feet. Depths and terrain vary widely. **ACCOMMODATIONS:** Parking lots have the combined capacity for 1,040 cars. A fee is charged for parking. There are paved ramps and steps leading to the beach. Restrooms, changing rooms,

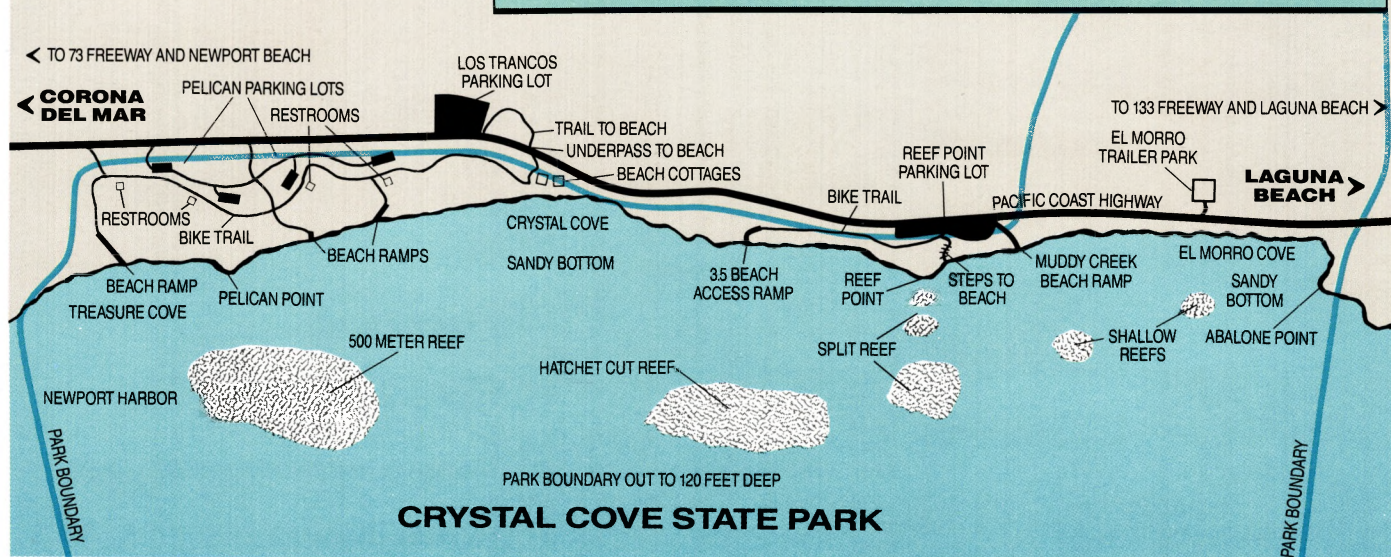
showers and sinks are available.

**LOCAL RULES:** The area is a marine reserve. Fishing and lobster hunting are allowed but no other invertebrates may be taken. The park is open year-round from 6 a.m. to sunset.

**EMERGENCY/SAFETY CONSIDERATIONS:** Lifeguards and rangers patrol the park year-round. Lifeguard towers are manned from Easter week to September 5. Pay phones are located in the Reef Point, Pelican Point and El Morro parking areas. For emergencies call (714) 497-2491, or 911.

**DIVE STORES:** To the north, the Aquatic Center, located at 4537 W. Pacific Coast Highway in Newport Beach; telephone (714) 650-5440. To the south, Laguna Sea Sports, located at 925 N. Pacific Coast Highway in Laguna Beach; telephone (714) 494-6965.

**WATER AND WEATHER INFO:** Laguna Beach lifeguards have a recorded water report at (714) 494-6573. To speak to a Crystal Cove lifeguard call (714) 494-3539.





branches, cup corals, anemones, sponges and other small animals which make great macro subjects. When the visibility is good, wide angle photographers can take advantage of the caves, arches, crevices and steep rock faces for some interesting shots. Animals such as octopuses, bat rays, sea fans and guitarfish are also common here, and they too make fine wide angle subjects.

### THREE MILES OF BEACH DIVING ACCESS

From Abalone Point to the end of El Morro trailer park the coastline is mostly sandy bottom. The first good beach diving area is off the Muddy Creek ramp off the south end of the Reef Point parking lot. Here in the shallow areas there are scattered rocks, surf grass and stands of feather boa kelp. Farther offshore there are patch reef systems interspersed with sand channels.

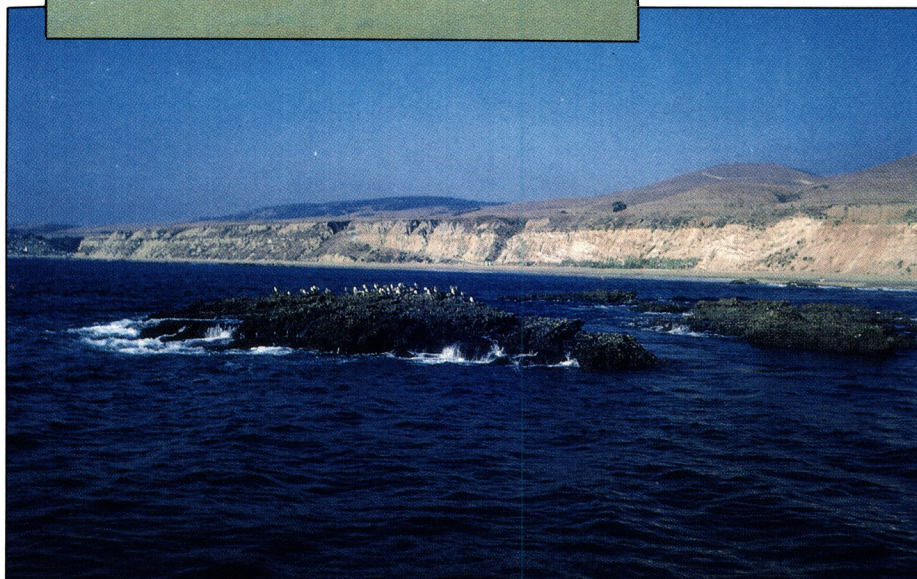
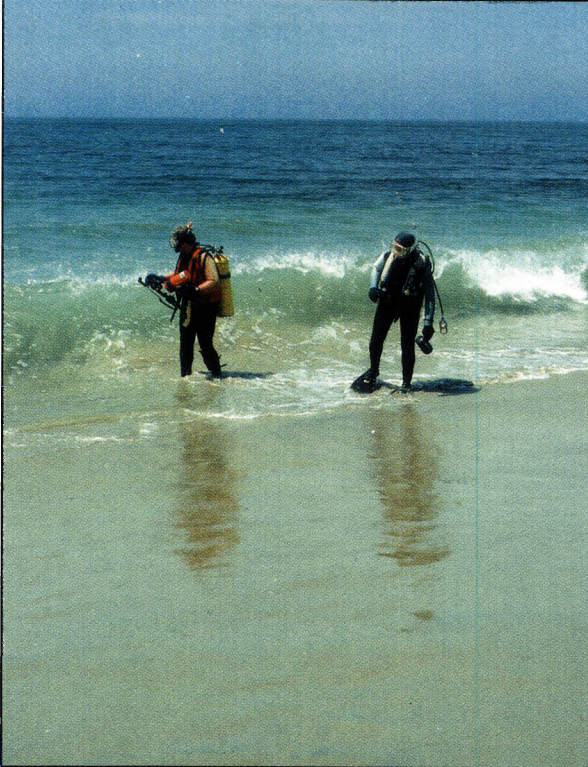
The area around Reef Point and Split Reef is one of the most well-developed reef systems in the park. The top of Split Reef is usually completely exposed at low tide. Tidepool enthusiasts are often seen climbing around this reef in search of creatures trapped by the receding tide. Moving directly seaward from Split Reef the reefs continue out for several hundred meters. Due to the easy access from the Reef Point parking lot and the abundance of near-shore reefs, this area is the most popular area in the park for beach diving.

Moving north along the coast you'll encounter scattered reefs up to the stand of cottages on the beach at Crystal Cove. In front of the cottages the ocean bottom is mostly sand with some small isolated reefs about 150 to 200 meters offshore. This area is reportedly a good area for halibut hunting. The closest parking for Crystal Cove divers is at the Los Trancos parking lot across Pacific Coast Highway. A pedestrian tunnel connects the parking lot to the beach area.

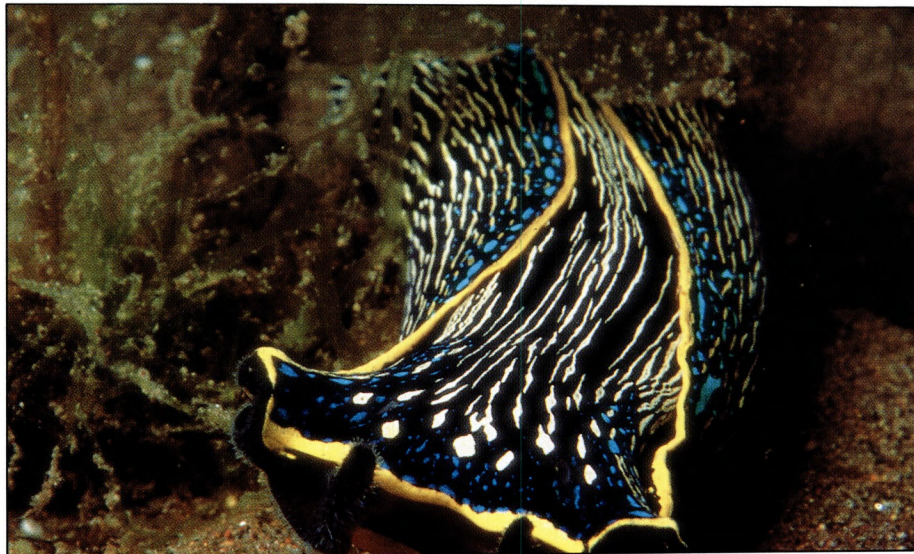
From Crystal Cove north to Pelican Point the near-shore area is characterized by clump reefs and heavy growths of sea grass and feather boa kelp. Pelican Point marks the beginning of a major reef system which extends offshore for 500 meters. Unfortunately, beach entries near Pelican Point are tricky. The walk from the parking lot is a long one and the footing in the entry area is difficult due to rocks and slippery surf grass. Beach diving in this area should be done only during periods of calm water.

North of Pelican Point the bottom is pretty much all sand so not much beach diving occurs here. However, at the park boundary on the northern edge of Treasure Cove are some of the most pristine tidepools in Orange County. The

*Buddy team  
makes a surf  
entry at Reef  
Point.*



*Top: The area around Reef Point and Split Reef is one of the most developed reef systems in the park. Bottom: Predatory Navanax.*





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*Blue-banded gobies are common along the reefs.*

area receives little pressure so the tidepools are unusually healthy. (If you visit here, remember that tidepool collecting is illegal.)

### BOAT DIVERS HAVE ACCESS TO PRIME SPOTS

Crystal Cove State Park is also a great resource for divers with private boats. Located only a few miles from the mouth of Newport Harbor, the park has lots of offshore reefs. Many of them are well-known, but there are numerous other spots just waiting to be discovered by intrepid boaters armed with depth finders. (Watch for small fishing buoys and areas

directly off headlands — these tend to be good indicators of favorable bottom terrain.)

**Hatchet Cut Reef** is one of the better-known offshore reef areas off Crystal Cove State Park. To find the reef, look for the first access ramp south of the cottages. Starting about 700 meters directly offshore from this ramp, head toward the beach, keeping an eye on your depth finder. At about 500 meters you should be in 60 feet of water. The reef lies approximately 450 meters offshore and comes to within 30 feet of the surface. (Keep an eye peeled for lobster traps — they are usually set right on top of the reef.)

Off Pelican Point, the first prominent headland north of the cottage area, is **500 Meter Reef**, a system sitting about 500 meters offshore in 55 feet of water. The reef runs parallel to shore, is approximately 80 meters long and comes to within 30 feet of the surface. Like Hatchet Cut Reef, this entire area is heavily trapped by commercial lobster fishermen. Clearly, it's a good bug hunting spot if you can get there early in the season. There are additional reef areas both seaward and inshore from 500 Meter Reef. A little exploration will uncover a lot of great diving.

Crystal Cove State Park's excellent topside facilities, its abundance of quality diving reefs and its proximity to Newport Harbor make it one of Orange County's premiere dive locations for both beach divers and boat divers. Being a relatively new park, it's still in the developmental stage. Hopefully, it will continue to be attractive to Southern California divers as a top-rated diving resource. □



*Crystal Cove's back country is popular among mountain bikers and hikers.*

*Scott Sansenbach is a free-lance writer and photographer living in Anaheim, California.*





## IS SEAFOOD SAFE?

*With all the chemicals and various other pollutants being dumped into our coastal waters, have we polluted ourselves right out of eating what we catch?*

A friend recently asked me an interesting question. He had just returned to Newport Beach from a short diving expedition along the coast and was pointing to a game bag filled with a good-sized kelp bass, a rockfish of some sort and two halibut-like fish. "Should I eat these?" he asked.

He had done all the right things — the fish had been carefully cleaned and preserved in an ice-filled cooler — but he was still concerned. He'd heard that some near-shore fish contain dangerous levels of pollutants. Was his concern justified?

This turns out to be a *very* interesting question. Many different kinds of synthetic organic chemicals are entering the ocean and becoming incorporated into its organisms. Among the most dangerous of these are halogenated hydrocarbons — a class of manmade hydrocarbon compounds containing chlorine, bromine and iodine atoms — used in pesticides, flame retardants, industrial solvents and cleaning fluids. Ingestion of small amounts of these compounds can cause illness and even death. The worst offenders appear to be pesticides like DDT, and polychlorinated biphenyls (PCBs), fluids once widely used to cool and insulate electrical devices. Concentrations of these substances in some ocean fish caught close to shore, especially near densely inhabited areas like Southern California, have increased dramatically over the past decade.

Have we polluted ourselves out of safe seafood? First some background, then a qualified answer.

### What we Mean by Pollution

We define marine pollution as the introduction by man of substances (or energy) to the ocean that change the quality of the water or affect the physical and biological environment. Great quantities of pollutants enter the sea from river runoff, rain and accidental or intentional dumping. The ocean's great volume and relentless motion dissipate and distribute synthetic toxic substances, but its ability to absorb is not inexhaustible.

It isn't known to what extent the ocean is contaminated by manmade pollution — by the time the first oceanographers began widespread testing, the Industrial Revolution was well under way and changes had already occurred. Traces of synthetic compounds have now found their way into every oceanic corner. It's sad to consider that we will never know what the natural ocean was like, or what remarkable plants and animals may have vanished as a result of human activity. Our limited knowledge of pristine conditions is gleaned from small seawater samples recovered from deep within the polar ice pack, and tiny bubbles of air trapped in glaciers. There are few undisturbed habitats left to study, and few marine organisms completely free of the effects of ocean pollutants.

### Characteristics of a Pollutant

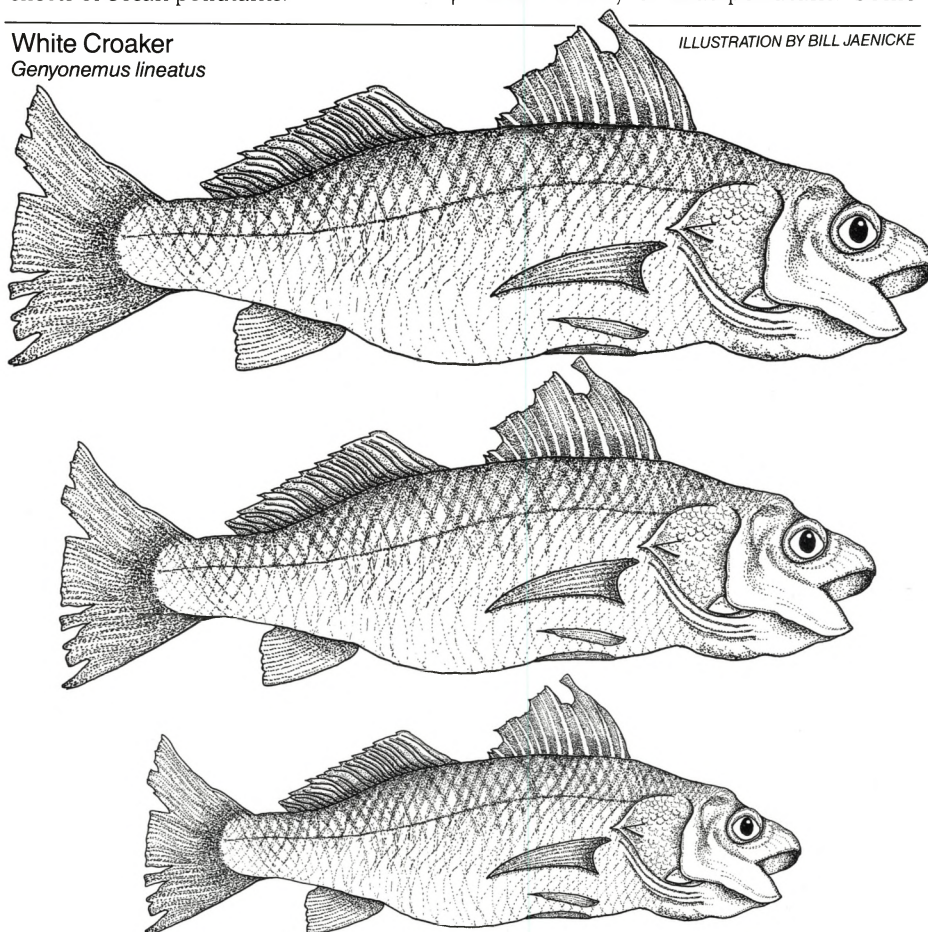
A pollutant causes damage by interfering with the biochemical processes of an organism. Some pollution-induced changes may be instantly lethal; other changes may weaken the organism over weeks or months, or alter the dynamics of the population of which it is a part, or gradually unbalance the entire community.

Three factors determine the danger of a pollutant: 1) the *quantity* of the pollutant introduced into the ocean, 2) the *toxicity* of the pollutant, and 3) its *persistence*.

For most pollutants the effects of quantity and toxicity are additive; that is, the response of an organism to a particular pollutant will depend on the sensitivity of an organism to the *combination* of quantity and toxicity of that pollutant. Some

White Croaker  
*Genyonemus lineatus*

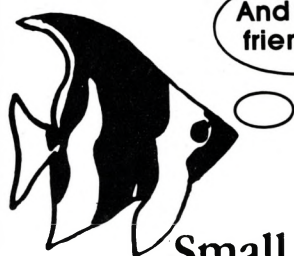
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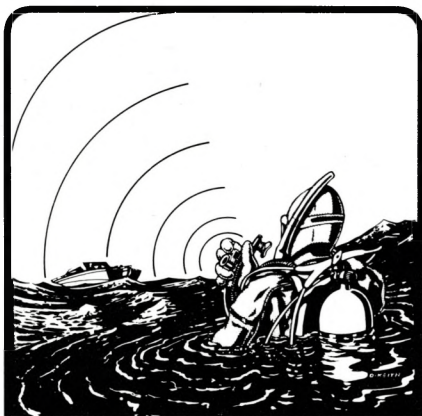
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pollutants are toxic to some organisms in tiny concentrations. Pollutants also vary in their residence times — some may persist in the environment for thousands of years; others may last only a few minutes. Degradation of pollutants to harmless substances may occur spontaneously, or through physical processes (like the shattering of large molecules by sunlight). Sometimes pollutants are removed from the environment through biological activity. For example, some marine organisms escape permanent damage by metabolizing hazardous substances to harmless ones. Indeed, many pollutants are ultimately biodegradable — that is, able to be broken by living things into simpler compounds.

**D**OLPHINS OFF THE U.S.  
COASTS ARE THE WORLD'S  
MORE INTENSELY  
CONTAMINATED MAMMALS.

Most are *not* biodegradable, however, because the synthetic compounds of which they are composed resemble nothing in nature and therefore resist attack by water, air, or living organisms.

Research has shown the effects of chlorinated hydrocarbons. As a class, these toxic substances have been associated with blood disorders; liver, kidney, lung and central nervous system damage; reduced fertility or sterility; and cancer. PCBs may be responsible for the behavior changes and declining fertility of some populations of seals and sea lions on islands off the California coast. More alarming to biologists is the recent discovery that the near-shore dolphins off U.S. coasts are the world's most intensely contaminated mammals. Body burdens of chlorinated hydrocarbons in these animals have been shown to exceed 2,000 parts-per-million, concentrations high enough to disrupt their immune systems, hormone production, reproductive success, neural function and ability to fight the development of cancers. These levels greatly exceed the five parts-per-million indicated by the U.S. government as the "maximum acceptable level" for humans! Investigations are continuing, as are probes into the effects of dioxin and other synthetic organic poisons accumulating in the oceanic sink.

True, fish provide a much higher percentage of the diet of a sea lion or dolphin

than they do a diver, but recent studies have shown that some human seafood lovers are also at risk. Southern California's white croakers and queenfish — species often taken by pier and jetty fishermen — contain relatively high concentrations of PCBs and DDT. Divers don't usually take these species, but a person eating fillets from two white croakers of average size each week runs about the same cancer risk as a two pack-a-day smoker; that is, about one chance in 10,000 of contracting cancer per occurrence. Gourmands who also eat the giblets run cancer risks more than 100 times higher because of the concentrations of toxins in the fish's internal organs, especially the liver.

### What's the Bottom Line?

So what did I tell my friend? I told him to eat his fish, and I helped. The most contaminated fish are those taken close to shore in harbors and bays. His catch was speared in deep, well-circulated water some distance from shore, so they typically contain only a small fraction of the harmful pollutants found in harbor-caught croakers. Though rockfish and flatfish are bottom feeders, samples of these species taken from the open ocean have shown little evidence of contamination.

But you should still be vigilant in your eating habits. For example, I won't eat any filter feeders (mussels, rock scallops, etc.). I also ask the source of seafood served in restaurants (the server rarely knows, but it's fun anyway). When I buy fish, I usually purchase fresh-frozen bass, halibut, orange roughy, ahi, or whatever happens to be on sale. And don't be fooled by the "fresh fish" label — fish cleaned and quickly frozen at sea is much fresher than "fresh" fish which has been sitting around on ice for a week or so. When cleaning food species, I'm very careful to avoid spilling the contents of the internal organs onto the flesh (especially in the case of lobsters, whose livers contain relatively high amounts of undesirable chemicals). I also watch the marine biological literature for information on this topic.

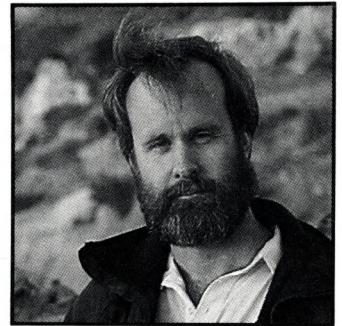
So eat your catch with an awareness of the changes we are making in our ocean. Enjoy your meal while you still can. □

*Dr. Tom Garrison heads the Marine Science Department at Orange Coast College, the largest undergraduate teaching department for marine science in the U.S. He holds national awards for teaching excellence from the Marine Technology Society and the Salgo-Noren Foundation, coauthored the PBS series Oceanus, and is the author of a new text in general oceanography soon to be published by Wadsworth.*



## THE QUEST FOR "COMMON KNOWLEDGE"

*The Coastal Monitoring Program is working with sport divers to discover what's really happening beneath the surface of our oceans.*



Our oceans are vast resources that produce much of the food we eat and, through the formation of clouds, the water we drink. They also act as absorbents for the pollutants and waste products that we produce, and scrub the excess carbon dioxide from the atmosphere which is warming our planet. In short, our oceans support life itself.

Only we divers are able to see an ocean in three dimensions. Only we can see firsthand the fragile interdependence between marine animals and plants. And only we are able to notice changes in the underwater environment as they happen. Let's face it, if all the garibaldis were to suddenly disappear from our favorite cove, who would notice but us divers?

Which poses a larger question. Just what if all the garibaldis were to disappear from our favorite cove? Would it be normal garibaldi behavior to disappear like that, or would their disappearance be some sort of indication of an ecological problem? And could we tell the difference?

Probably not, unless we were privy to local "common knowledge." It's common knowledge, for example, that gray whales migrate to Baja's Scammon's Lagoon to calve, or that water tends to be colder but clearer in the wintertime. These bits of information help us to paint a picture of what's "normal" for our surroundings.

### **Underwater "Common Knowledge" is Thin at Best**

As it turns out, surprisingly little common knowledge exists when it comes to knowing what's taking place beneath the surface of our oceans. For example, there is little common knowledge to help us understand the blooming of sea ferns, or the herd movements of sea hares, or where and when specific fish will be nesting. And this is unfortunate, because if we can't recognize what is normal, how can we tell when things have become abnormal? Or, stated differently, only by being able to recognize what a healthy

undersea environment looks like will we be able to detect when it's sick.

The challenge, then, is to fill in the gaps in our undersea common knowledge, a task that is easier said than done, primarily because gathering any kind of underwater common knowledge is extremely difficult. In order to gather sufficient information to come up with a single piece of common knowledge about, say, a particular section of reef in a particular cove off the Southern California coast, you'd have to have at least a handful of divers diving that spot all day, every day, 365 days a year!

Obviously, this is a physical and financial impossibility for conventional scien-

tific data gathering organizations. But it's not impossible if you can tap into that portion of our population that's in the water all the time anyway — recreational divers.

### **Sport Divers Play a Vital Role in Gathering Data**

This idea of using sport divers for gathering data was first tested back in 1967 when Dr. Wheeler North was invited to give the biology portion of training for the L.A. County Advanced Diver Program (ADP). That year, ADP candidates moved kelp plants from Leo Carrillo Beach to Point Vicente in an attempt to restore the Palos Verdes kelp beds. The attempt failed,



*Due in part to the efforts of PURP, kelp beds have returned to the Palos Verdes coast.*



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In July 1990, diver teams did a Coastal Monitoring survey at Crystal Cove State Park.

but it cut a new path in data gathering for others to follow.

Encouraged by the enthusiasm and commitment shown by recreational divers, the L.A. County Underwater Unit initiated the Palos Verdes Underwater Restoration Project (PURP) which was run cooperatively by four agencies: the L.A. County Department of Parks and Recreation (which administered the program), the Greater Los Angeles Council of Divers (which supervised the actual ocean work), the Los Angeles Fish and Game Commission (which funded PURP) and the California Institute of Technology (which provided scientific guidance).

The project started at White's Point on the Palos Verdes coast on August 1, 1971. To everyone's amazement, on that first day over 800 sport divers showed up ready to volunteer their time for kelp restoration. Based on this astounding turnout, PURP administrators decided that if their immediate goal (restoring the kelp beds) was successfully accomplished, they would attempt to use recreational divers on an ongoing basis to monitor offshore resources.

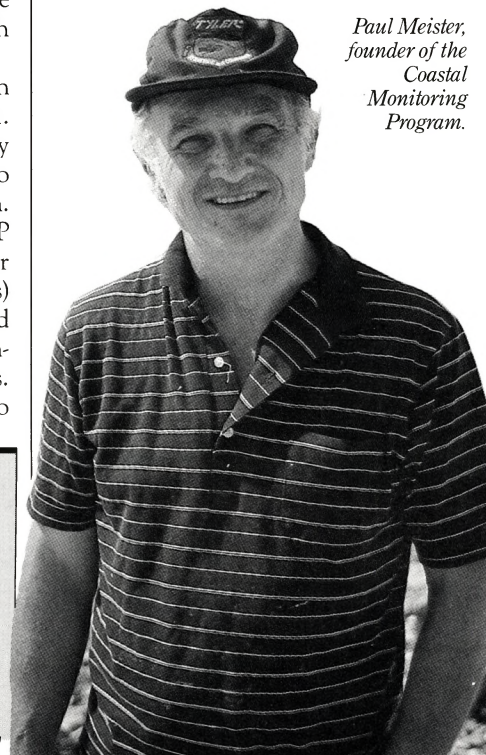
By 1972, kelp slowly began to return to

Palos Verdes, so the next year the Greater Los Angeles Council of Divers formed an Ocean Projects Section to investigate the feasibility of developing a program to implement the long-term offshore monitoring and management goals of PURP.

In 1976, L.A. County initiated the Coastal Monitoring Program in cooperation with the Ocean Projects Section to develop baseline data for coastal management. The Los Angeles chapter of the Oceanic Society joined the program two years later.

The 1980s saw a closer working relationship develop between the scientific and recreational diving communities with improvements in the organization of interpretive monitoring and educational activities. The main dive site for monitoring was Issei Cove on the Palos Verdes Peninsula. It was here that the techniques for underwater coastal monitoring took shape. This shore station was easily accessible, a place where divers could consistently find specific underwater locations and work under favorable conditions. The observations gleaned at Issei Cove laid the foundations for the future expansion of coastal surveys.

One of the first monitoring systems set up as part of the expansion program took place in Orange County at Crystal Cove. In July, 1990, survey teams of the L.A. County Advanced Diver Program did the cove's first underwater Coastal Monitoring survey. Using all the skills learned over the years at Issei Cove, they were able to complete the survey in only one day.



Paul Meister,  
founder of the  
Coastal  
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### Get Involved!

For more information on the Coastal Monitoring Program contact the Los Angeles Chapter of the Oceanic Society, c/o Paul Meister, 588 Talbert Ave., Simi Valley, CA 93065; (213) 828-1178. Classes begin in January at both the Crystal Cove and Issei Cove locations.



## Newsletter & Meetings Help Divers Keep in Touch

It takes a little bit of training for the average recreational diver to be able to notice and report aquatic activities in such a way that they become useful to a data base. For this reason the Coastal Monitoring Program developed training procedures at its shore stations to enable divers to return to their own dive spots and begin to gather information that would contribute to the creation of additional pieces of common knowledge.

A computer data base has been developed to incorporate and process all information generated by volunteer divers. Common Knowledge Data Forms ask definitive questions about specific topics. Divers simply make their dives, then fill out the easy-to-use forms and mail them into the data base.

New training programs are constantly being developed, data forms are revised and meetings are held to present findings

*THE COASTAL MONITOR*  
NEWSLETTER PROVIDES A  
PLATFORM FOR DIVERS TO  
WRITE IN WITH PROBLEMS  
OR DISCOVERIES.

and share information with other volunteers. Notifications of classes, meetings and other pertinent information are available through *The Coastal Monitor* newsletter which keeps participants updated on activities as well as provides a platform for divers to write in with problems or discoveries.

If you've ever had the desire to get more personally involved with your ocean, meet other environmentally active divers, add a new dimension to your sport and contribute to the gathering of offshore common knowledge, consider getting involved with the Coastal Monitoring Program. Subscribe to the newsletter, sign up for the classes. By being involved in this program you can actually make a difference in the future of your oceans, and at the same time have a heck of a lot of fun. ☐

*Rick Baker studied marine geology at the Moss Landing Institute at Moss Landing, California, and holds degrees in chemical oceanography and geology.*



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*Right: Rushing water assails Turret Rock about an hour before slack tide. Below: Grasping the rock sea floor is an immense population of goose-neck barnacles.*

# *Beat the*



*It's a race against time when diving British Columbia's Nakwakto Rapids. The dive plan calls for getting in and getting out fast, before the tide turns and all hell breaks loose.*

*Article and photos by Jett Britnell*





# Clock!

**S**hivers ran down my spine as I looked upon the treacherous stretch of water known as Nakwakto Rapids. The swirling whirlpools and turbulent foaming eddies were capable of swallowing a 17-foot Boston Whaler and spitting it up again some 100 yards downstream. Was I intimidated? You can bet your jet fins I was!

Diving aboard John de Boeck's *MV Clavella*, we timed our arrival so we could witness the raging power of a full tidal exchange in this menacing quarter-mile-wide channel. Situated in a remote region of British Columbia, approximately 200 miles northwest of the city of Vancouver, Nakwakto Rapids is acknowledged in the *Guinness Book of World Records* as having "the strongest current in the world" — up



*Scaleyhead sculpin sits on a sea star and watches approaching divers.*

to 16 knots (that's 18.4 miles per hour) during its largest tidal exchanges. A quick review of area nautical charts revealed that these formidable tidal currents exist because Nakwakto's narrow passage is the only avenue of escape for the voluminous tidal water flowing between several deep glacier-carved fjords and Queen Charlotte Strait.

Turret Rock, a tiny steep-sided island, stands in the middle of Nakwakto Rapids. Local legend says that the island actually vibrates in the fast flowing waters, giving rise to its common nickname "Tremble Island." More likely, this ominous epithet refers to the involuntary muscle spasms which overwhelm divers contemplating a dive here.

Every five or six hours the tumultuous water movement around Turret Rock diminishes to a dead calm before reversing its tidal course. This short period of "slack water" lasts anywhere from a few minutes to a half-hour. It's during this transitory window of time that "experienced divers" are able to get a fleeting glimpse of Turret Rock's current-swept seascape.

Just such a slack water time was approaching for us. Laughter proved a thin disguise for the ashen complexions worn by some of the divers on board. We were all seasoned divers who had made many dives at other notable Pacific coast fast-current sites such as Dodd Narrows, Race

Rocks and Seymour Narrows. But somehow this was different. This was Nakwakto Rapids.

As the moment of truth arrived, a sudden calm fell over the ship. Quietly, we climbed into our drysuits. Timing our entry and exit during the slack water interval, which is often unpredictable in its length and intensity, would be critical. Last-minute equipment checks were made as *Clavella's* diving skiff transported us closer to Turret Rock.

"Go for it!" Captain de Boeck shouted from the stern of the diving skiff. One by one, the buddy teams hit the water. I descended and settled on a rocky ledge 30 feet below, pausing for a moment to let my eyes adjust to the lower light level. Visibility in the slightly turbid water was about 40 feet. Looking around, I was amazed to see an alluring rock garden overgrown with various forms of invertebrate marine life. It was difficult to understand how any living creature could withstand the constant pounding of such punishing tidal currents.

Long rope-sized strands of bull kelp, firmly attached to the rocky substrate, brandished their delicate fronds toward the sunlit surface. Capitalizing on the current's brief respite, tiny hermit crabs quickly foraged for food amid yellow sponge canyons while flame-tipped nudibranchs laid circular ribbon-like egg



*Slack tide arrives. Clavella's skiff departs for Turret Rock.*



masses. Photogenic clusters of roseate soft corals further adorned the picturesque surroundings.

My wife and dive buddy Rita waved me over and pointed to a red Irish Lord laying motionless on the bottom. I wondered, "What's a nice fish like you doing in such a wicked habitat?" No doubt the brilliantly colored sculpin was wondering the same thing about me.

Moving into deeper water, we encountered more stalwart reef inhabitants as we plummeted over the oblique rock ledges and chiseled crevices that bordered the island's perimeter. Everywhere there appeared loose conglomerations of pink brooding anemones, thickets of feather duster worms, solid patches of blue mussels, and an occupant whose recent discovery here has totally baffled marine biologists. Before us, firmly cemented to the rocky sea floor, was an immense subtidal population of goose-neck barnacles (*Mitella polymerus*).

Once thought to be the exclusive residents of the intertidal zones on exposed surf-pounded coasts, these relatives to the common acorn barnacle appeared to be flourishing under the enormous stress and strain of their deep-water environ. Each clump of pearly-shelled goose-necked barnacles contained hundreds of individuals busy filter-feeding nutrients from the plankton-rich waters.

I had exposed only a few frames of film before I started to feel the pull of the ebb current. The average bottom time for a Turret Rock dive is between 25 and 35 minutes, and it looked as though our time was up. Rita and I ducked behind a giant boulder but discovered there was no escape from the rising current. So we pushed off and drifted until we got beyond the island, and then we ascended, following our pre-dive instructions. When we reached the surface we found Captain de Boeck in the dive skiff nestled in close to



*Every five or six hours the tumultuous water around Turret Rock diminishes to a dead calm before reversing course.*





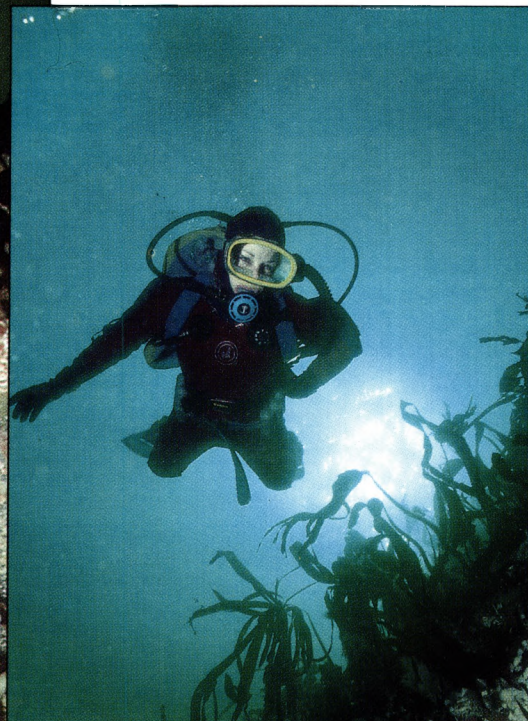
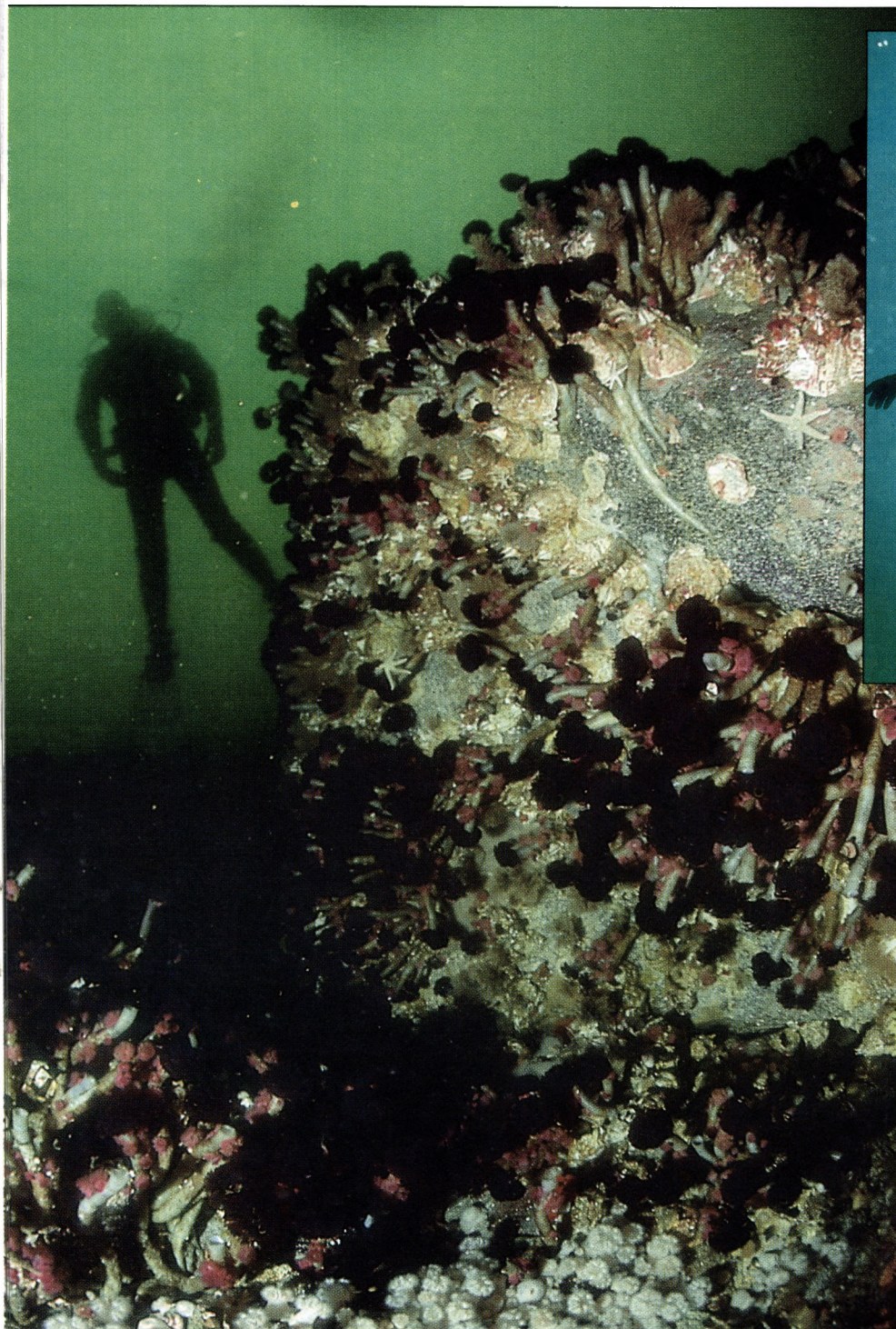
The MV *Clavella* generally visits the Nakwakto Rapids between April and October. The vessel has dived the area for the past eight years without incident.

For more information contact John de Boeck, Magna Yachting Ltd., Box 866, Station "A", Nanaimo, B.C. Canada V9R 5N2; (604) 753-3751.

*Rita Britnell descends into the temporarily placid waters for a quick visit before the tidal change.*



MV *Clavella* at anchor near Turret Rock.



*It's difficult to understand how any creature could withstand such punishing tides.*

the lee side of Turret Rock, waiting to haul divers out of the water. He swung out into the current and headed toward us.

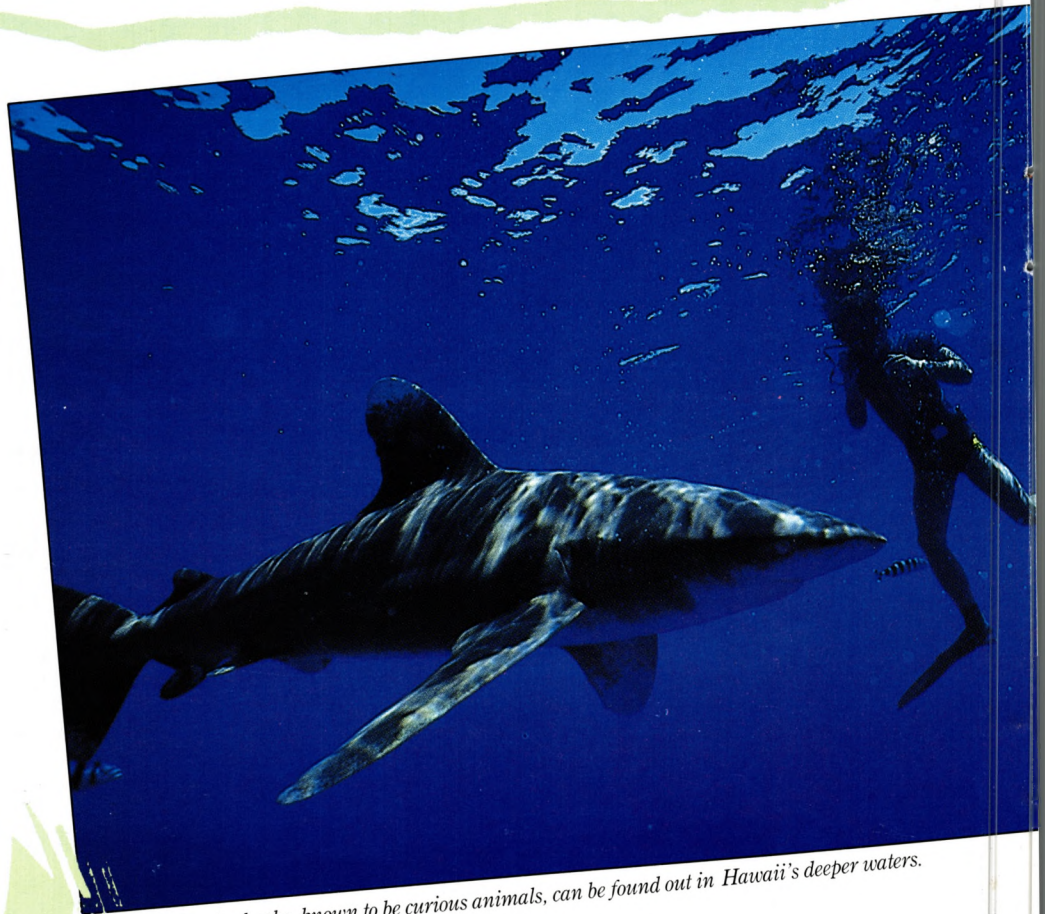
Moments later we were sitting in the warmth of *Clavella's* salon sipping hot chocolate and swapping stories. Usually only one dive is made at Turret Rock since there's a six-hour wait between slack water periods. So as *Clavella* weighed anchor to head for a second dive site somewhere in Slingsby Channel, we turned to see the Nakwakto Rapids once again boiling around Turret Rock, trying to shake the island's foundation, leaving its mark on our memories. □

*Jett Britnell is a Vancouver-based free-lance photographer and writer who specializes in natural history and travel subjects.*



# Hawaii's 12 Best

*Here are a daring dozen guaranteed to get your adrenalin pumping.*



*Oceanic white-tip sharks, known to be curious animals, can be found out in Hawaii's deeper waters.*

Article and photos by Steve Rosenberg

**H**awaii is the number one vacation dive destination in the West. However, the majority of divers visiting the islands tend to be relatively new to the sport; consequently, most Hawaiian dive operations are set up primarily to meet the needs of novice to intermediate divers. So where does that leave advanced divers? Do underwater veterans have to look elsewhere for their vacation diving kicks? Not necessarily. As it turns out, there are spots throughout the Hawaiian Islands that are guaranteed to pique the interest of even the most experienced sport divers, and there are a number of Hawaiian dive operations ready and willing to arrange special trips for divers with some experience under their belts who are craving something a little different.

For the sake of this article, let's define "advanced" dive sites as those requiring a higher level of diving skill due to deeper depths, stronger currents or open water; and those requiring enough underwater experience to enable you to safely react to unusual underwater terrain or the presence of large pelagics.

Many of Hawaii's advanced sites are remote; to get to them you need either a live-aboard dive vessel or day boats that are fast enough to get to the out-of-the-way spots. But still others are close to heavily populated areas, and some of them can even be reached from shore.



# Advanced Dives



*Huge mantas cruise into shore at night off the Big Island's Kona Surf Hotel.*

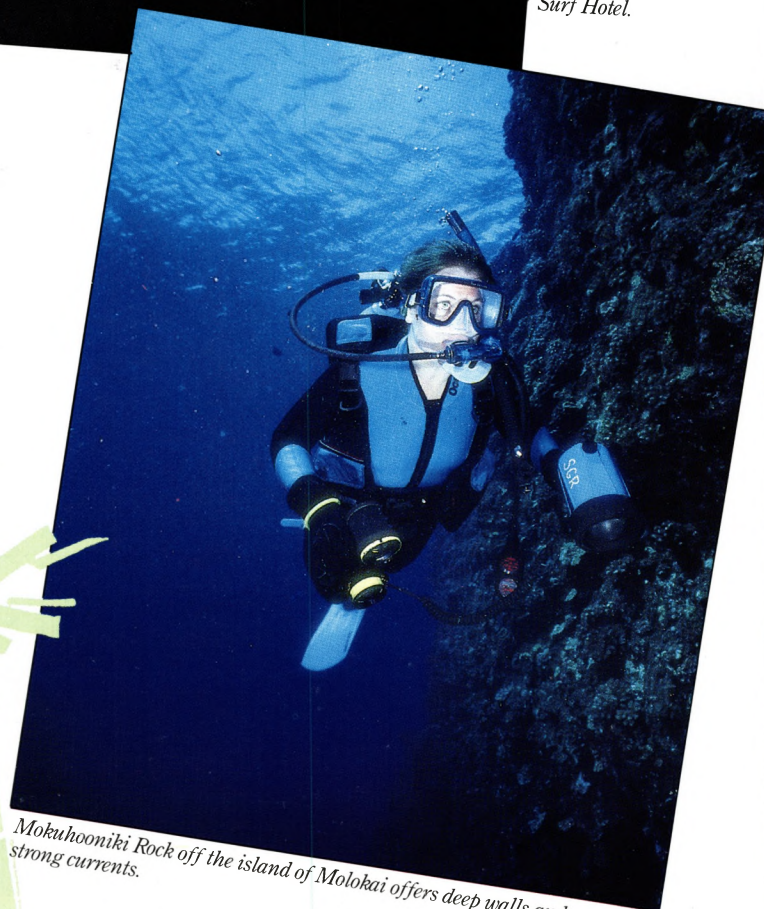
## **MANTAS AND WALL DIVING — AND THESE ARE BEACH DIVES!**

Along the Big Island's Kona Coast there are two fascinating dives that can be reached from shore. One is right off the **Kona Surf Hotel**. While not an "advanced" dive in the traditional sense of the word, it offers a nighttime underwater experience guaranteed to get even the most jaded travel diver's blood boiling.

The hotel sits on a lava rock shore a few miles south of the town of Kailua-Kona. Each night the hotel turns on a number of spotlights which shine into the water just below the hotel's main restaurant as well as on a small cove about 40 yards down along the lava wall. These spotlights attract plankton, and the plankton in turn attract manta rays.

On almost every night of the week you can find from as few as two to as many as 10 manta rays with wingspans reaching 12 feet in water as shallow as 15 feet. As long as there are only a few divers in the water the manta rays will continue to feed while performing their underwater somersaults and figure eights, sometimes gently pushing divers out of the way who happen to interfere with their ballet moves.

Another excellent shore dive on the Kona Coast is at the **Place of Refuge Park**. Located at Honaunau just a few miles south of Kealahou Bay (Captain Cook's Bay), The Place of Refuge is probably the most protected shore dive along the Kona Coast, yet it offers more diversity than any other shore dive in the islands. There is easy access into the water via lava steps at the center of the bay. Off to the right of the entry point is a vertical wall that drops from a shallow shelf in 20 feet of water to a flat sandy bottom over



*Mokuhooniki Rock off the island of Molokai offers deep walls and strong currents.*



100 feet deep. Along this wall clouded with huge schools of baitfish you can swim with amberjacks and other large pelagic species.

#### LAVA TUBES HIGHLIGHT SOME SPECTACULAR TOPOGRAPHY

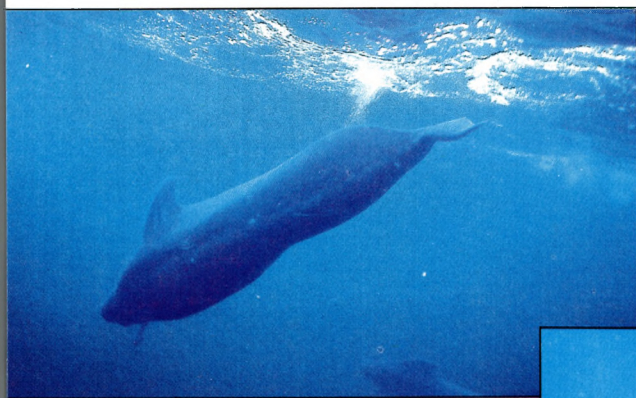
While boasting a few great beach dive sites, Hawaii's best diving is accessible by

A rock column rising out of the water marks the entrance to the lava tubes. Just behind this rock there's a spacious cavern. Make sure to bring your dive light when exploring these caves. Except for the light at the entrance, which quickly fades as you swim back into the recesses of these natural pipelines, the only illumination

and interconnecting tunnels. The complex is so extensive that the *Kona Aggressor* always places a safety line in the cavern equipped with a strobe light and a spare scuba tank before allowing anybody to go inside. There's also a back door to the caverns that leads to another interesting lava tube tunnel.



*Above and left: The channel between Maui, Lanai and Kahoolawe is a great place to run into humpback and pilot whales. Below: A school of Goatfish off Molokai.*



boat. And one of the Big Island's most spectacular boat dives is exploring the lava tubes found at **Cavern Point**, located on the northern edge of Laeokamimi Point on the Kona Coast, just south of Kealahou Bay.

One of the Kona Coast's newest diving areas, there are actually a number of different dive sites in the Cavern Point area. The Kona Coast's two live-aboard dive vessels, the *Kona Aggressor* and the *Sun Seeker*, make regular stops at these sites, and they are also visited by some of the shore-based dive operations out of Kailua-Kona.

The primary attractions at Cavern Point are Twin Lava Tubes and Three Room Cave. At **Twin Lava Tubes** there are two parallel underwater tubes, one on top of the other, that extend over 200 feet straight into the lava rock wall. The tubes range from 10 to 20 feet in diameter and their walls are scored with cracks and crevices which hide a variety of cowries, shrimps and lobsters. Schools of soldierfish, solitary bigeyes and glasseye snappers also roam the darkness.



you're going to have is what you bring with you.

**Three Room Cave** is located just south of Twin Lava Tubes. A vertical wall drops to about 25 feet. To find the entrance to Three Room Cave, swim toward shore along the vertical wall. The opening is fairly large. Inside you'll find three incredible caverns with high arching ceilings

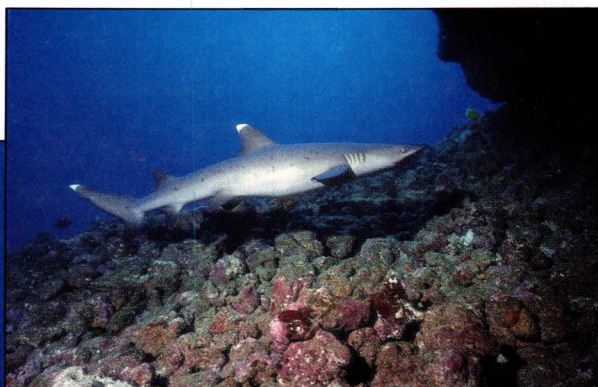
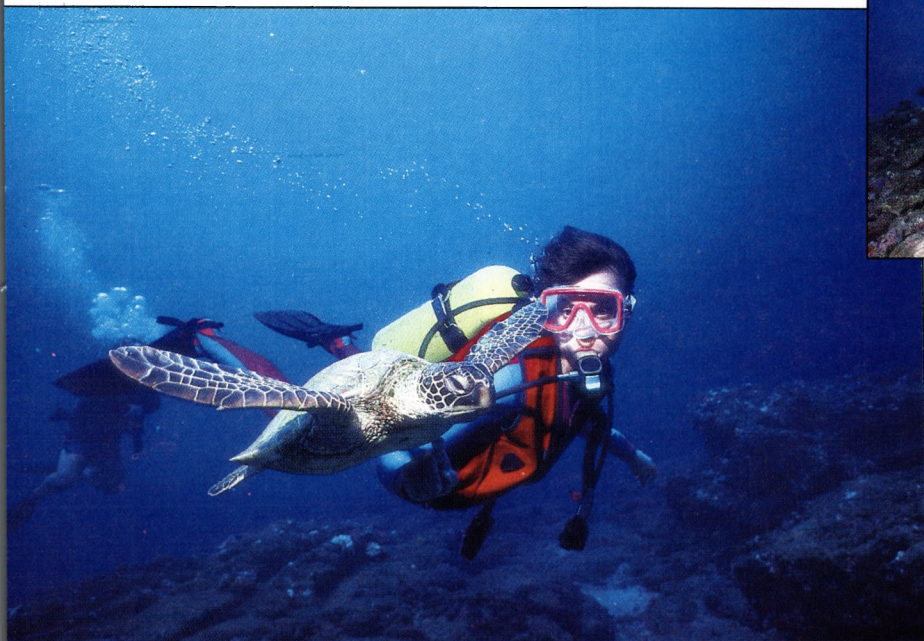
The holes along the ceilings of the tunnels and caverns are home to bright orange Hawaiian lobsters, bullseye lobsters, slipper lobster, spiny lobsters and mole lobsters. Turkeyfish are also quite common, as are white-tip reef sharks, leaf scorpionfish, frogfish and other rare and interesting animals.

Elsewhere in the island chain, the southeastern side of Lanai also has some excellent lava tube diving. The best of these are First Cathedrals and the Second Cathedrals. **First Cathedrals** offers a huge underwater grotto inside a lava ridge that's full of arches, caves, tubes, crevices and interconnecting passageways. The rear wall of the main cavern is a latticework of holes, which gives the interior a cathedral-like appearance as sunbeams flicker into the cavern.

The **Second Cathedrals** is a massive hollow pinnacle rising from 65 feet deep to a flat plateau in 15 feet of water. The inner cavern is a gigantic room with several large tunnels providing rear exits. Both First and Second Cathedrals are full of marine life, including squirrelfish, nudibranchs, lobsters, cowries, moray eels and crabs. These Lanai sites are often visited by Lahaina Divers and other dive operations from across the channel at Lahaina, Maui.



*Diver swims with a green sea turtle off Kauai's Turtle Hill.*



*Lanai's Cathedrals are the scenes of occasional encounters with white-tip reef sharks.*

#### WHALES, SHARKS AND DOLPHINS ABOUND IN BLUE WATER

Some of the most exciting diving in the Hawaiian Islands is found in areas where the bottom is hundreds and even thousands of feet deep. Each year, between the months of November and April, humpback whales migrate to the warm Hawaiian waters to give birth to calves and to breed. As a result, whale watching has become a major pastime for visitors. Listening to the haunting songs of the whales, watching them frolic on the surface and the occasional unexpected underwater encounter

are experiences you won't soon forget.

Humpback whales are protected by federal laws that strictly preclude boats and individuals from approaching within 100 yards of them. However, the laws do not prevent whales from approaching divers who happen to be in the water. Because the number of whales appears to be on the increase, encounters are becoming more and more frequent, but you still have to keep your fingers crossed to be able to actually get in the water with them. An excellent location for sighting humpback whales is in the channel between the islands of Maui, Lanai and Kahoolawe.

Of course, there are more than just humpbacks out in Hawaii's blue water. There are also pods of pilot whales, and where there are pilot whales there are invariably a few oceanic white tip sharks. This beautiful open water shark is known to be a curious animal, so don't be surprised if they approach very, very close.

Frequent encounters are also made with spinner dolphins. This small member of the dolphin family is easily recognized for its acrobatics. They seem to love leaping out of the water, spinning and doing somersaults in large numbers not far from shore.

Two of the best locations for blue water snorkeling and diving are the backside of Molokini Crater near the southwest side of Maui, and the deep water of the Kona Coast on the big island of Hawaii.

Ed Robinson's Adventure Diving out of Kihei on Maui also offers some exciting blue water diving in the waters off Molokai. And on the Kona Coast the Kona Aggressor and Sun Seeker are well-known for their blue water excursions. Several Kona Coast day boat operators, including Kona Coast Divers, Jack's Diving Locker and Dive Makai, also provide excellent opportunities for blue water diving and snorkeling.

Continued

*During the summer months Bubbles Below runs a boat out of Hanalei Bay on the north shore of Kauai.*







*Snorkeler on the lookout for spinner dolphins, commonly seen in blue water dive sites.*

#### OUTSTANDING DIVE SITES AT THE REMOTE ISLANDS

One of the most exciting dive spots in the Hawaiian Islands is located off the eastern end of the island of Molokai, at **Mokuhooniki Rock**. Unfortunately, weather and ocean conditions permit access to this area only about 30 days a year. But if you're lucky and nature is cooperating, you'll find visibility con-

sistently in the 100-plus range. During the day, it is one of the few areas where you can still see large schools of goatfish, pennantfish, pyramid butterflyfish and blue-striped snapper. Large titan scorpionfish are also common, often reaching lengths of 18 inches. Pelagics, such as eagle rays, Japanese barracuda, manta rays and large jacks, are seen on almost every single dive. There have also been frequent

sightings of small schools of hammerhead sharks.

A deep vertical wall on the east side of **Hook Cove** at Mokuhooniki Rock offers probably the best night dive you can find on the islands. At depths of 100 feet or more, octopuses and spiny lobsters can be seen almost everywhere you look. Unusually large triton's trumpet shells and tiger cowries are also common, as are Spanish dancer nudibranchs, moray eels, pufferfish and varieties of scorpionfish. However, even on those nights when the weather is calm, the extreme depths make this a dive for *very* experienced divers. In this remote area, surface squalls or heavy down currents can appear quite unexpectedly. Lahaina Divers and Central Pacific Divers, both out of Lahaina, Maui, offer the most frequent trips to Mokuhooniki Rock.

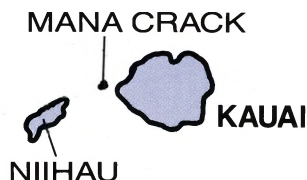
**Mana Crack**, a long underwater lava ridge running parallel to shore along the western end of the formidable Na Pali cliffs on the northwestern side of Kauai, can be reached via a two-hour boat ride from Port Allen. The diving is deep and the currents are strong. Wind direction can change at the blink of an eye, creating surface chop that will roil the stomach of even the most stalwart seamen. But if you can put up



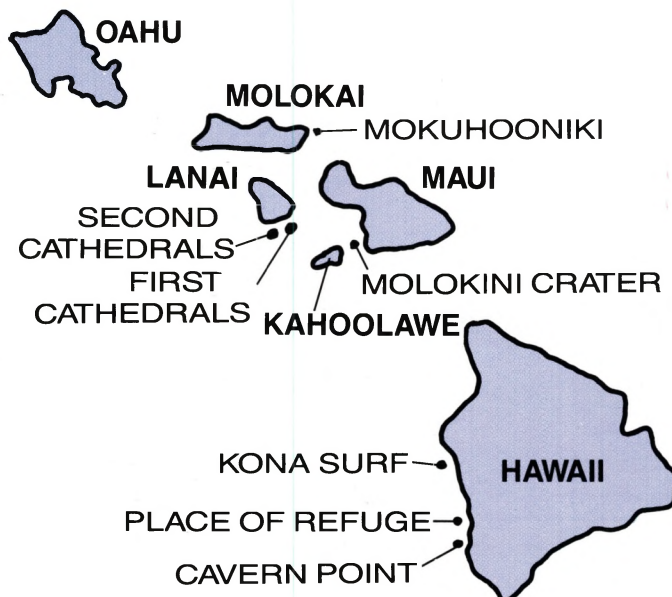
*A Hawaiian lobster found at Three Room Cave on the Kona Coast.*



The Kona Aggressor, considered the finest live-aboard in the Pacific, runs seven-day dive trips up and down the Kona Coast.



## HAWAIIAN ISLANDS



with all that, diving Mana Crack is pure magic.

Mana Crack is an animal lover's dream

come true. Because of the currents, large pelagics frequent the area; it's not at all uncommon to see black-tip sharks and

gray sharks and jacks and dolphins and rays. Aquatics Kauai offers frequent trips to the Mana Crack aboard its 43-foot



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Odysseus, the only large dive boat operating on the island of Kauai.

Trips to the nearby island of Niihau also promise some first-rate diving adventure. Although the island is only 12 miles from the nearest point on Kauai, the crossing can often be long and bumpy. Aquatics Kauai and Bubbles Below run one-day summer trips on an infrequent basis to the northeastern tip of Niihau. When the ocean is flat, the trip takes about three hours.

Because of its inaccessibility, the coastal areas of Niihau offer near virgin diving. While lacking a substantial amount of coral, the underwater sites offer spectacular vertical walls, canyons, giant arches and caverns along with a variety of pelagics that include rays, sharks, jacks, tuna, ulua and other game fish.

Hawaii is truly a unique diving destination. It is widely publicized as a great place for novice and intermediate divers to get their first warmwater diving experience. However, Hawaii is much more than that. It's also a place where advanced divers, by choosing dive sites carefully, can enjoy unusual marine animals and breathtaking underwater topography rivaling vacation dive destinations the world over. ☐

Steve Rosenberg is a professional writer/photographer/videographer based in Northern California. He is the author of the new Aqua Quest book *Diving Hawaii* as well as many other books on sport diving.



# Equipment

## GETTING WET AND STAYING DRY

*If chilly winter temperatures are keeping you out of the water, maybe it's time to take a look at the wonderfully warm world of drysuit diving.*

**I**t's late January off the California coast. You know the lobsters are there. You also know the water temperatures are a bone-numbing 48 degrees. You go for it anyway, but by the time you climb back on board the boat, your hands are so numb you can't remove your gloves.

Is the pleasure of cold water diving worth so much pain? Perhaps there's a better way. Perhaps it's time for a drysuit.

### Today's Drysuits Offer You Four Choices

The original sport diving drysuits, like wetsuits, were made of neoprene rubber and featured glued and taped seams, attached boots and neoprene wrist and neck seals. Averaging \$700 to \$800, today's

neoprene drysuits such as Parkway's Unisuit and Harvey's Aqua Capsule, among others, are extremely popular among old-time drysuit divers, especially those in Northern California and Washington.

The disadvantage to neoprene drysuits is the weight factor. The suits themselves are heavy, some topping the scales at 15

**Y**OU'LL FIND MANY DIVERS  
WEARING VULCANIZED SUITS  
BECAUSE OF THEIR DURABILITY.

pounds. Beyond that, neoprene itself is buoyant, and combined with the air trapped inside the suit itself, it becomes necessary to load a whole lot of lead onto your belt to counteract the buoyancy.

In the early '80s, an alternative to neoprene appeared on the drysuit scene. European companies like Viking, Typhoon and Aquala came out with suits

made of thin yet extremely durable vulcanized rubber outer shells over a nylon lining and using latex wrist and neck seals.

Thermal protection was provided by wearing insulated undergarments.

Vulcanized suits weigh far less than neoprene drysuits, they can be patched in minutes, and they are extremely durable.

The density of the vulcanized rubber enables you to wear far less weight. In fact, depending upon mass to weight ratios, some divers have discovered that they use less weight with their vulcanized drysuits than they do when wearing a standard wetsuit.

However, vulcanized drysuits tend to be a bit pricey. A good vulcanized suit can run as high as \$1,200. And although latex seals are durable, they wear out faster than neoprene (but are easily replaced).

You'll find many hard-core divers wearing vulcanized suits because of their durability and adaptability to special accessories such as dry gloves and commercial collars for dive helmets. In fact, a number of divers whose job it is to inspect cooling tanks inside nuclear reactors are said to prefer vulcanized suits.

During the mid-'80s O.S. Systems, Harvey's, Seatec and DUI began making lightweight pack cloth nylon drysuits coated with waterproof urethane interiors that took the drysuit market by storm. The big bonus of fabric suits is that they are very affordable, ranging from only \$400 to \$700.

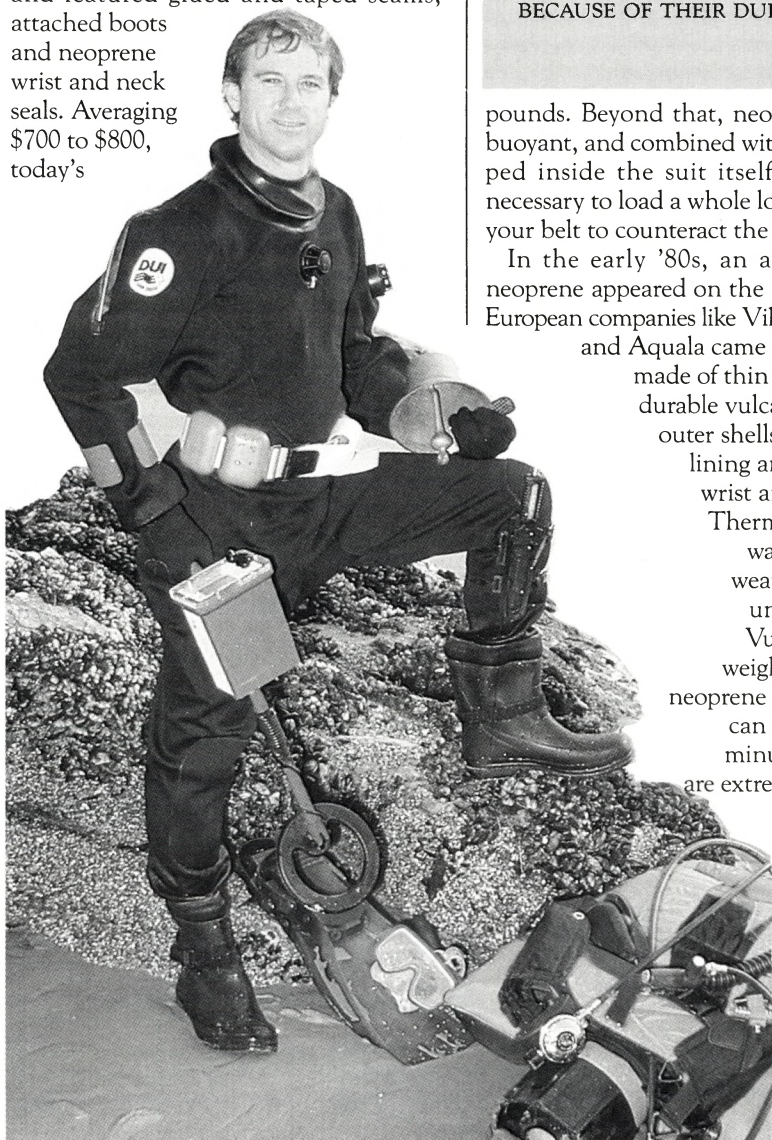
Finally there's the CF200 drysuit, manufactured by DUI of San Diego. The CF200 falls into a unique category. It features a thin layer of high density neoprene sandwiched between varying thicknesses of nylon. The result is a medium-lightweight suit with greater flexibility.

Like vulcanized suits, the CF200 is less buoyant than neoprene drysuits. Perhaps the only disadvantage to it is that puncture repairs take just slightly longer than vulcanized suits. Flexibility falls somewhere between the vulcanized suits and the neoprene suits. They cost plenty, though: from \$1,150 to \$1,500.

### Make Drysuit Selections Based on Use

So which drysuit is for you? If you've already plunked down a sizeable wad of cash for your existing gear, you're probably going to find the fabric style of drysuit attractive by virtue of its price. However, be aware that even the best of fabric suits has a life expectancy of only three to four years under normal use.

Neoprene drysuits are slightly more





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expensive than fabric suits, they create less drag in the water but they suffer in flexibility and require that more lead be worn on the belt.

Vulcanized suits and the CF200 cost more, require less weight, are more flexible and have a much longer life span.

How do you choose? Well, first ask yourself how many dives you plan to make in a year wearing your drysuit. If you don't dive in cold water often, a fabric suit could probably last you a long, long time. On the other hand, if you're an active cold-water diver, it may make better sense to invest in a more expensive suit that offers better durability and twice the life span of a fabric suit.

### A Look at Undergarments and Valves

While neoprene drysuits provide a degree of thermal insulation in their own right, vulcanized and fabric suits are designed to keep you dry only. For warmth, you have to wear undergarments.

Some of the best undergarments on the market are made of polypropylene or pile, available in a variety of thicknesses. Not only do these materials provide warmth, they "wick" perspiration away from your skin. Should any water get into the suit, the outside of the garments will get wet, but you should stay relatively dry. Various drysuit manufacturers offer pile undergarments in 17- and 23-ounce thicknesses that relieve the need for polypropylene.

The best rule to follow is to find a material that layers well, and then keep your undergarments to a minimum. The least amount of insulation you can comfortably dive with, the more comfortable and less restrictive your diving will be.

When wearing a drysuit, as you venture into deeper water and air compresses, squeeze occurs that must be remedied by injecting short bursts of air via inflation valves. Conversely, as you ascend and the air inside the suit expands, deflation valves are needed to bleed off the excess air.

There are several types of inflate/deflate valves used on today's drysuits: variable volume, positive pressure and power deflate valves. The variable volume valve allows you to "dial in" the amount of air you want in your suit so as you ascend the air bleeds out on its own. The positive pressure valve, on the other hand, simply requires pressing to release trapped air. A newer arrival on the drysuit scene is DUI's power deflate valve. This valve enables you to inflate or vacuum-deflate by pressing the same button.

Winter has arrived, bringing with it

some of the best water conditions of the year. What are you waiting for? It's time to get wet, while staying warm and dry. ☐

### Tips for New Drysuit Divers

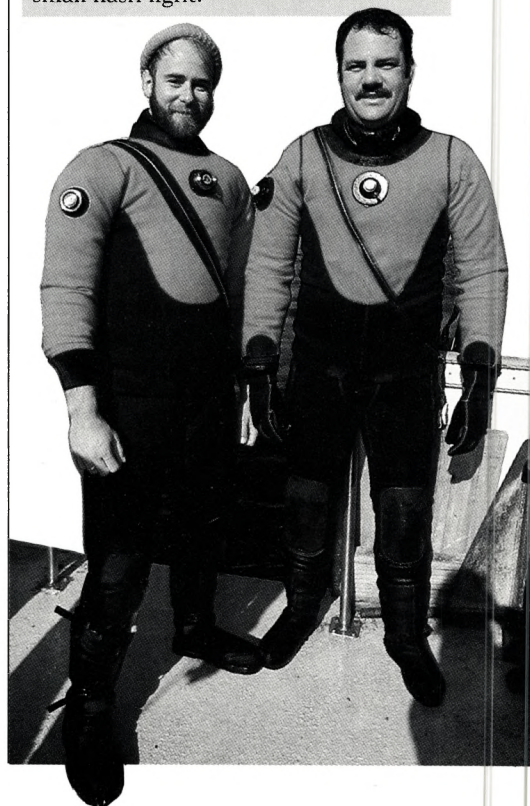
For the first-time drysuit buyer, one word of caution: when you first switch from a wetsuit to a drysuit, be prepared to hate it. Initially, drysuits seem cumbersome and bulky and no fun at all. But there are ways to minimize this equipment culture shock.

\*First, buy your drysuit from a dive store that provides instruction for its use (at the very least a pool session with a seasoned drysuit instructor). Drysuit diving specialty courses are also available.

\*If you're buying a drysuit with attached boots, you'll probably be wearing wool socks or felt inserts. Because of this you'll need a bigger pair of fins to accommodate the extra thickness.

\*Consider wearing ankle weights, which can help you to maintain a better trim while swimming.

\*Finally, protect your seals by washing them in mild soap and water after each use. Apply some kind of seal saver after rinsing and prior to storage. Maintain your waterproof zippers with Zip Slip (or beeswax). Store the suit in a trash bag to avoid ozone damage when not in use. Inspect seals for cracks and pin holes in a dark room with a small flash light.





# The Party's Over

By "Baja John" Francis

As I write this, Saddam Hussein of Iraq is in the news. Among his many perfidious deeds was a story about an Iraqi general who apparently displeased Hussein during the Iraq-Iran war. Recalled to Baghdad, when the general stepped off the plane he was given a court martial and a bullet in the ear, delivered by Hussein himself right there on the tarmac.

So maybe you can understand my mixed feelings when I got that call from the Chief (not that I think the Chief and Saddam Hussein are at all alike. After all, Hussein has a mustache, while the Chief has a mustache *and* a beard). Over the crackling Mexican phone lines the Chief told me he had just read my last column, and he figured it was about time I terminated my Baja assignment and returned to the office.

It was then I remembered that in my last column I had made a few harmless jokes about the Chief's personal relationships with female sea lions. But hey, it was all in fun. Only people who knew the Chief would believe that stuff anyway.

The Chief assured me there was no connection between my recall to the home office and my last column. "Heh-heh. Oh no, Baja John," the Chief assured me, his words sounding like they were being strained through clenched teeth. "That column was a real knee-slapper, heh-heh, yes it was — now get your ass back to this office!"

Figuring I had jammed both feet in my typewriter this time, I mentioned to the Chief that we were smack-dab in the middle of hurricane season, and only a complete fool would risk trekking up the Pacific coast of Baja in a small boat with so many storm warnings posted.

The Chief must have been really eager to have me back, because he insisted I start moving right away, hurricanes or no hurricanes, suggesting that heavy winds would

be the least of my problems if I didn't materialize in front of his desk ASAP.

Being one who appreciates a steady paycheck, I threw caution to the wind and set out up the coast. The combination of running toward the Chief and away from the hurricane zone — I don't know which is worse — meant there would be no time for diving along the way, but my scuba equipment didn't go unused. With the winds howling in my face and sheets of Pacific Ocean crashing down on me as my boat toppled over wave after wave, my mask, I quickly discovered, made a damn good windshield. And once when the entire boat disappeared in a trough I even considered breaking out my tank and regulator.

In spite of Nature's fury I managed to sneak up the coast without getting dashed against some lonely stretch of rocks along the wild shores of Mexico. I felt kind of proud of myself and marched into the PD office with my chest out and my nose held high, prepared for a reception befitting a man just returned from an angry sea.

Contrary to the urgency of our phone conversation, when I walked into the Chief's office he was at best surprised, and at worst disappointed, to see me. For some reason he had passed the word around the office that I had headed to the South Pacific to stir up some trouble and wasn't expected back for a few years.

But then again, maybe I read the Chief wrong, because after his initial hangdog expression upon seeing my sunburned face, he recovered, gave me one of his big empty smiles and invited me to go with him over to Catalina Island, a sort of welcome home dive, as it were.

You might think that after a year of warm water diving the last thing I'd want to do is pull on a quarter-inch wetsuit, but down in Mexico I had really missed the kelp forests and even the cold water of California. Maybe it's the challenge of



"Baja John."

California diving, or maybe it's just that there's no place like home. In any case, I leapt at the chance to dive Catalina.

Now the Chief can be the nicest guy you'd ever want to meet when he wants to be. And I guess he wanted to be that sunny morning on the boat as we charged across a flat ocean heading for the island. About mid-channel, the Chief called me over to the stern rail and told me that our first dive of the day was going to be on a seamount he had discovered while I was down in Baja. Believe it or not, it was right out here in the middle of the channel, and nobody knew about it but him.

Well, the Chief is known to be very stingy with his secrets, so I felt honored that he would allow me to dive a spot that he had never shown to anyone else.

"This is going to be a drift dive," the Chief said as I climbed into my wetsuit.

"Is the boat going to slow down any?" I asked.

"Oh no," the Chief said, glancing quickly around the boat. "That's part of the fun. We're going to jump off the stern at cruising speed. And you get to jump first."

Seeing as how the Chief usually likes to be first at everything, I figured this was some sort of a welcome home honor. I couldn't help it, my eyes teared up. The Chief was being so nice; hell, he even took the trouble to hook my regulator up to a spare tank while I stood there wondering how I could have ever said such terrible things about this wonderful human being.

With a hysterical grin, the Chief hurried over and lifted the tank on my back and draped my regulator hose over my



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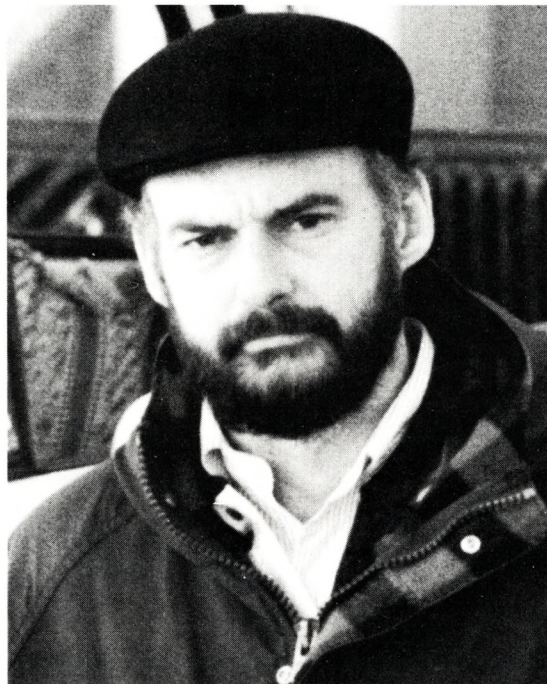
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shoulder. Then he hopped over and unhooked the safety chain stretched across the boat's transom, and then he stepped back and with a bow and a wave of his arm he beckoned me into the frothy wake of the roaring dive boat.

I was somewhat dismayed to see that the Chief wasn't completely suited up yet, and I was about to mention it when he seemed to read my thoughts. He smiled and patted me on the shoulder. "Right behind you, buddy."

He seemed so eager for me to make my giant stride that I just couldn't disappoint him. I put the regulator in my mouth and slipped my mask down over my eyes, and

I STOOD THERE LIKE A  
DUMB KID WHO JUST  
GOT CAUGHT TRYING  
ON HIS MOTHER'S DRESS.

was just about to take the big step when from behind me I heard the captain yell, "Hey! What the hell's going on down there?"

Regulator in my mouth, mask firmly in place, I turned around to see the captain leaning against the railing on the upper deck glaring down at me with a beet red face. The Chief had suddenly become very interested in the aerial antics of some sea birds, and while he discreetly sidestepped away from the unlatched chain and the open gate I stood there by myself fully suited up and breathing noisily through my regulator, feeling like some dumb kid who just got caught trying on his mother's dress.

Needless to say, we never got around to that mid-channel dive — the captain kept too close an eye on us after that — but later that day the Chief sidled up and whispered for me not to worry, he'd bring me back some other time and we'd try again.

Later I realized it was a lucky thing we didn't make that dive, because as it turned out, the tank the Chief had hooked my regulator up to and lifted onto my back didn't have any air in it.

Go figure. □

"Baja John" Francis is *PACIFIC DIVER's* S.O.B. contributing editor, who will be spending his time looking at the local diving scene until he can sneak back to the Sea of Cortez.



# A Look at Live-Aboards

*If you're looking for diving and nothing but diving, you can't beat a live-aboard. And here are 11 of the finest in the Pacific.*



STEVE ESSIG

Article and photos by  
Darren & Stacey Douglass

## HAWAII: Kona Aggressor

A growing number of divers consider live-aboard diving the ultimate in aquatic adventure. Self-contained floating dive resorts, live-aboard vessels can travel farther, stay longer and enable you to spend more time in the water than if you were diving out of a shore-based operation. Following is a sampling of some of the best live-aboard dive vessels operating in the Pacific, from British Columbia to Baja California and on out into the South Pacific.

### KONA AGGRESSOR KAILUA-KONA, HAWAII

The luxurious Kona Aggressor, considered the ultimate live-aboard in the Aggressor fleet, carries only 14 passengers. Seven staterooms are air-conditioned and each features a private shower and head. There's a hot tub up on the sun deck, along with a fully stocked bar. On the dive deck there's an E-6 photo lab, a complete

line of rental underwater camera and video equipment, dive lockers and fresh-water showers. And inside the main salon you can partake in some of the finest meals afloat and then enjoy reliving your diving adventures on the VHS and 8mm video cassette players.

The crew of the Kona Aggressor strives to offer its diving guests something different, and has been successful in getting divers in the water with large Kona Coast pelagics like dolphins, whales and turtles. A seven-day diving excursion costs about \$1,695, with air fare from LAX running from \$300 to \$500, depending upon the time of year.

### SPIRIT OF THE PACIFIC BRITISH COLUMBIA

A new live-aboard caters to small groups for extended cruises to Barkley Sound and its environs. Departing from Vancouver Island, eight to 11 diving passengers are treated to the majestic beauty of British Columbia's tree-studded mountains

aboard the steel-hulled *Spirit of the Pacific*. Seventy feet long by 17 feet wide, the *Spirit* features double staterooms, a comfortable dining area and a cozy lounge. A sun deck sits above the galley, and an efficient diving platform can be found on the aft deck. Often completely enclosed in canvas, the dive deck has floor heaters, hanging areas for drysuits and room to stow cameras and extra dive gear.

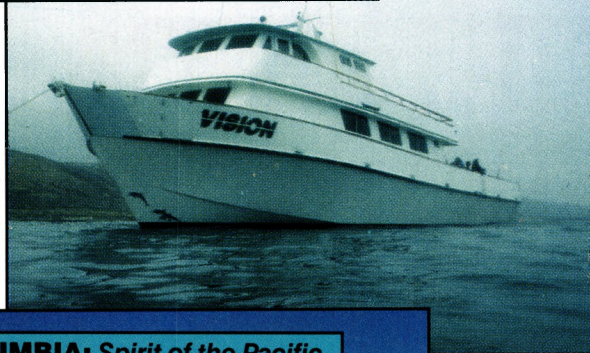
The crew is helpful and friendly and the meals are first rate. The table is set with wine to accompany fresh salmon, steak and other culinary delights. The *Spirit* runs three- to five-day trips into the Pacific Rim National Park. Rates are about \$150 per day. Air fare from LAX runs from \$250 to \$350.

### CONCEPTION & VISION SANTA BARBARA, CALIFORNIA

The 75-foot *Conception* and 80-foot *Vision* are classic live-aboards operating out of Southern California's Santa Bar-



**SOUTHERN CALIFORNIA: Vision**



**BRITISH COLUMBIA: Spirit of the Pacific**



bara Harbor. The only true live-aboards on the California coast, each vessel carries about 30 passengers and offers drying areas for wetsuits, game freezers, soft drink dispensers, deluxe galleys, dryers for towels and bathing suits, large sun decks for relaxing and the best food and crew service you could hope for.

The boats don't have private staterooms but their bunk rooms are spacious, and each roomy bunk has a curtain, a reading

light and storage cubbies. The boats run year-round trips from three to five days in length out to the far corners of the Channel Islands. Rates run about \$95 a day. Santa Barbara Harbor is a 2½-hour drive from Los Angeles.

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**BAJA CALIFORNIA: Don Jose**



**COSTA RICA: Okeanos Aggressor**



cruise the pristine waters of the Sea of Cortez. Currently undergoing repairs, the 120-foot *Baja Explorador* is a former oceanographic research vessel that can accommodate up to 20 divers. Designed specifically for scuba diving expeditions, the smaller *Don Jose* is 80 feet long and is able to accommodate 18 divers. Both vessels visit such popular dive sites as Los Islotes, Las Animas and San Diego Reef. Rates run about \$1,095 for a seven-day dive trip aboard either vessel. Air fare from LAX to La Paz averages \$200 to \$250.

**OKEANOS AGGRESSOR  
COSTA RICA**

Costa Rica's *Okeanos Aggressor* sails exclusively to Cocos Island, a huge uninhabited island miles offshore. Just getting to Cocos Island is an adventure in itself with an open-ocean crossing of nearly 17 hours. But the trip is worth the effort.

The *Okeanos Aggressor* is 120 feet long and can carry 18 divers. Like all Aggressor dive vessels there are work areas for photographers, great food and separate dive and sun decks. Ten-day trips cost about \$1,895 per diver. Air fare to Costa Rica from LAX runs from \$750 to \$850.

**PACIFIC NOMAD  
SUVA, FIJI**

Fiji features hundreds of islands spanning thousands of miles of ocean, and to explore these waters is the 115-foot *Pacific Nomad*. A former coastal freighter that's been converted into a dive ship, the *Nomad* may not be as plush as other live-aboards, but its proximity quickly places you in a world of soft corals, rays, sharks, turtles, giant clams and sweeping schools of reef fish.

The *Nomad* departs from Suva for cruises to Beqa Lagoon, Astrolabe Reef and island chains northeast of Viti Levu. It also runs extended trips (up to 10 days) to the eastern Lau group of islands. Seven-day dive trips run about \$1,500, and you can plan on spending from \$750 to \$850 for air fare from LAX.

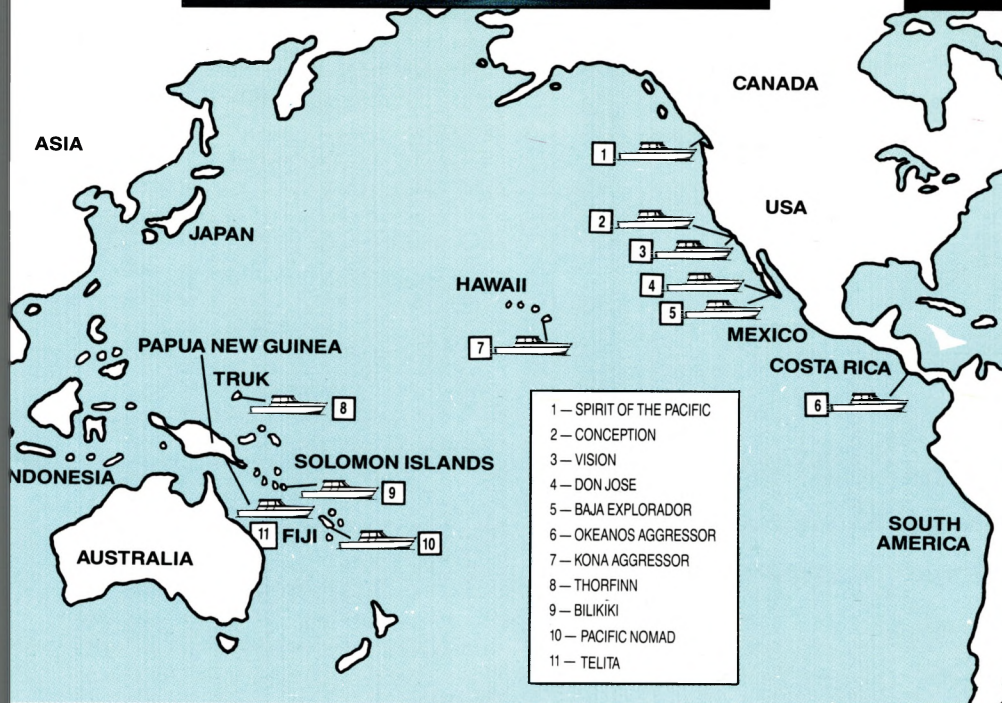




**TRUK LAGOON: Thorfinn**



**SOLOMON ISLANDS: Bilikiki**



### Booking Information

**Live/Dive Hawaii Inc.**, P.O. Box 2097, Kailua-Kona, HI 96746-2097; (800) 344-KONA U.S. & Canada; (800) 329-2446 Intl.

**Truth Aquatics**, Sea Landing Breakwater, Santa Barbara, CA 93109; (805) 962-1127.

**Sea Safaris**, 3770 Highland Ave., Ste. 102, Manhattan Beach, CA 90266; (213) 546-2464.

**Baja Expeditions**, 2625 Garnet Ave., San Diego, CA 92109; (619) 581-3311.

**Aggressor Fleet Ltd.**, P.O. Drawer K, Morgan City, LA 70381; (800) 348-2628.

**See & Sea Travel**, 50 Francisco St., San Francisco, CA 94133; (415) 434-3400.

**Pacific Spirit Charters Ltd.**, 4924 Argyle St., Port Alberni BC, Canada, V9Y 1V6; (604) 723-1291.



**SOUTHERN CALIFORNIA: Conception**

**BAJA CALIFORNIA: Baja Explorador**



### BILIKIKI SOLOMON ISLANDS

Bathed in the memory of bloodshed and gunfire, the Solomon Islands invoke World War II names like Guadalcanal, the

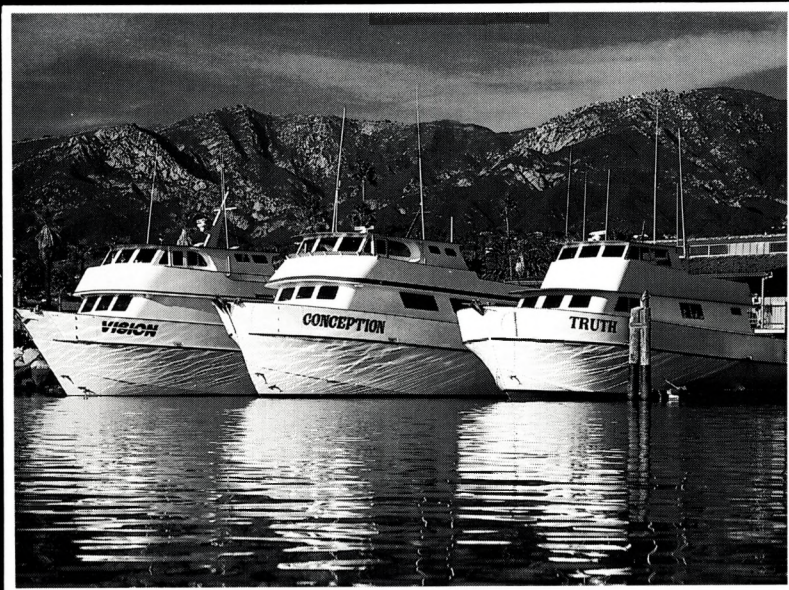
### NEW GUINEA: Telita



Slot and Bougainville. This is where the 127-foot coastal freighter-turned-dive vessel *Bilikiki* runs its week-long forays into the New Georgia and Russell islands. The *Bilikiki* carries a maximum of 20 divers. The price for a seven-day trip runs



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about \$1,540. Air fare from LAX costs \$1,190.

### TELITA PAPUA NEW GUINEA

Not far from the Solomons lies Papua New Guinea, home of mountainous volcanic peaks, earthquakes, serpentine rivers and dense jungle. Immortalized in James Michener's haunting *Tales of the South Pacific*, Papua New Guinea is still a remote source of adventure on the rim of the modern world.

The 66-foot motor yacht *Telita* cruises from Alotau, Papua New Guinea, to Kavieng with some itineraries ending in Rabaul. The *Telita* is designed to carry 10 passengers in five large air-conditioned cabins, with a comfortable salon and galley and special work tables for cameras and charging receptacles for strobes and dive lights. There's also a large sun deck and fresh-water showers. *Telita* runs 10-day charters for about \$2,750. Air fare from LAX to Papua New Guinea runs about \$2,000.

### THORFINN TRUK LAGOON

Micronesia's Truk Lagoon hosts some of the most spectacular shipwreck diving in the world. Over 50 Japanese merchant and naval vessels lie on the bottom. Even today, Truk is a lonely outpost among the islands of the South Pacific.

Touted as the largest live-aboard vessel devoted exclusively to diving, the 170-foot *Thorfinn* was originally built as a whaling ship. Now a pleasure craft, it carries up to 26 passengers in 13 staterooms. All cabins are fully air-conditioned. The vessel generally remains at anchor within Truk Lagoon as skiffs run divers from wreck to wreck.

When it's time to dry out, you can relax in *Thorfinn's* spacious salon, or enjoy the hot tub on the second deck. The staterooms are not luxurious, but they're roomy and neat. A seven-day dive cruise costs \$1,400, and air fare from LAX runs about \$1,053.

All charter trips (with the exception of Truth Aquatics and Pacific Spirit Charters) provide transportation to and from the airport, all shipboard meals, tanks and weights. Some vessels offer bar service at an additional charge, while others operate on the BYOB method. Tips are appreciated by crew members. If the service is good, 10 to 15 percent of the charter in tips is recommended.

Live-aboard dive vessels: they're the practical answer for those who really want to spend their vacation time diving, and diving and — diving. ☐

Darren and Stacey Douglass are PACIFIC DIVER's feature editors.

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## THE DFG VERSUS ME. I WON MY CASE...BUT LOST A BUNDLE

By William Rhinehart, Riverside, California

It was a very unusual birthday. We had just returned to the docks after two glorious days of scuba diving out at Santa Cruz and Santa Rosa islands aboard the dive boat *Truth*. The weather had been marvelous and the diving was some of the best I had seen in the 20 years since I first got certified. Spending my birthday diving I was able to shoot some spectacular photographs as well as find six "keeper" red abs (this trip was taken in the summer of 1988, prior to the revision of abalone game laws — Ed.).

A warden from Fish & Game was at the docks to "greet" us when we pulled into the harbor. I brought my hunting license and my game bag over for inspection, and this is where my story begins.

I had measured my abalone catch several times — both underwater and on the boat — and was quite sure they were all legal, so I had no misgivings about handing them over to the game warden for a recheck. After measuring the first five abs in my game bag the warden picked up my last ab and measured it. Then she did something that to this day raises the hair on the back of my neck. She turned her measuring device over and started to chisel away at the abalone shell! I asked her what she thought she was doing. She smugly replied, "Removing the growth."

After hammering away at the abalone she remeasured the broken shell, and then proceeded to cite me for taking an undersized red abalone. Needless to say, I was furious. But I took the ticket and went home.

I spent the good portion of the next day on the phone talking to various Fish & Game personnel, after which time I decided that I was not going to take this flagrant misuse of authority "lying down." I figured I'd take my day in court and let the judge decide if I had in fact violated any laws.

I live in Riverside; the court district was in Santa Barbara, a six-hour round trip. So I took the day off work and drove up for my first appearance where I pleaded "not guilty." The judge accepted my plea and set a court date.

Before my court date arrived I had the

opportunity to talk to several divers who were on the *Truth* that day, and I was shocked to learn from some of the locals that what had happened to me was not an isolated incident. Apparently this game warden had a reputation for pulling similar stunts with other divers. Needless to say, she was not very well-liked by the local diving community.

When my court date arrived I took another day off work and drove back up to Santa Barbara. The game warden never showed up, so the judge found me not guilty by "default."

So I had been vindicated, but by then I had amassed quite a bill. Including the days I had to take off work, the notary fees, the phone calls, postage and gasoline, I

had spent \$337.08 to defend myself against a \$60 ticket that was given to me by a game warden who didn't even have the courtesy to show up in court. I decided to sue the state for what it had cost me to fight this erroneously issued citation.

To sue any governing body you must first file a claim against that body's "Board of Control." I filed against the State of California; two weeks later my claim was returned because I had neglected to send copies in triplicate. So I sent the forms in triplicate, but then the board wanted to see receipts. Finally they got it straight and set a date for a committee review (not the actual hearing). After many months, several trips to the courthouse and many, many phone calls to the small claims



ILLUSTRATION BY DAVE LYONS





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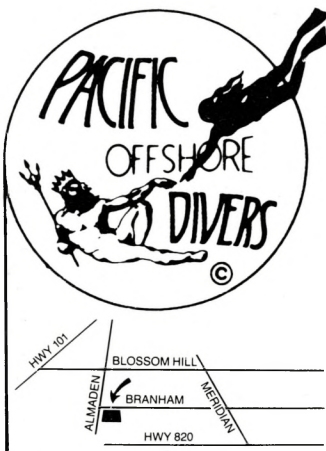
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advisor, the committee recommended that my case be sent to a "full hearing." Three months later I got a letter from the California State Board of Control "rejecting" my claim.

My next option was to file a small claims action against Fish & Game. But the certified letter I sent to serve the state was returned to me as unservable! (I thought no one could refuse service of a court order but it appears the state can.) Fish & Game claimed it was "unclear" about the service instructions. So I tried again, this time using a marshall service. The order was returned. I tried again, and again, and finally the marshall hit pay dirt: Fish & Game accepted service on January 29, 1990.

The date arrived, I took yet another day off work and showed up for my day in court. But to my surprise Fish & Game didn't show up. Once again, I had won by default. Everything seemed okay and I figured the ordeal was over, until two days later when I was notified by mail that Fish & Game's representative arrived at court late that day. He claimed to have been caught in traffic and got a "motion to vacate judgment." So a new court date was set. What could I do? I took another day off work.

On April 30, 1990, one year and nine months from the date of the initial citation, I stood in front of a judge in municipal court in Riverside and argued my case. Three days later I was notified that the judge had determined that "the defendant does not owe the plaintiff any money on the plaintiff's claim..."

This fiasco turned out costing me \$886.12 to stand up for myself when I did nothing wrong.

In the early '80s I spent several years as a California Hunter Safety Instructor, and since then I've been involved in numerous volunteer projects to aid Fish & Game. Like many divers, I am concerned about the environment and so I keep myself well-informed about current developments in wildlife management. I have always been an outspoken anti-poacher, and under no circumstances would I ever think of breaking a game law.

The way I see it, Fish & Game lost something from this citation mess too. They lost my respect. □

Do you have something in your logbook that you'd like to share with other divers? If so, send it to LOGBOOK, c/o PACIFIC DIVER, P.O. Box 6218, Huntington Beach, CA 92615. A self-addressed, stamped envelope must be included to ensure the return of any photographs. A \$25 award will be given for any stories selected for publication.



## Costa Rica's Cocos Island Gets a New Live-Aboard

Island Fleets & Resorts and International Diving Expeditions have announced that the RV *Undersea Hunter*, owned and operated by Avi Klapfer and his first mate Orly, will commence chartering dive excursions at Cocos Island starting in November, 1990. According to its owners, the 90-foot steel-hulled research vessel has undergone extensive renovation.

*Undersea Hunter* has guaranteed departure dates for January, March and April of 1991, which is the peak diving season at Cocos Island. For more information contact either Island Fleet & Resorts at P.O. Box 18057, Corpus Christi, TX 78480-8057, (800) 255-8503; or International Diving Expeditions at 11360 Matinicus Court, Cypress, CA 90630, (800) 544-DIVE.

## Tropical Adventures Offers Indonesia Live-Aboard Package

Tropical Adventures is now booking dive packages aboard the 100-foot M/V *Tropical Princess*, which plies the waters of Indonesia. The world's largest archipelago, Indonesia is a nation of more than 17,000 tropical islands with one of the world's most extensive networks of coral reefs.

A complete 10-day trip, which includes air fare from Los Angeles, costs \$2,375. For more information, contact Bob Goddess at Tropical Adventures, 111 Second North, Seattle, WA 98109; (800) 247-3483.

## Maui's Lahaina Divers Institutes "The 3 R" Program

Lahaina Divers, of Lahaina, Maui, has devised a program designed to educate divers about Hawaii's local ecology. The program is one in which all Lahaina Divers' diving guests can participate.

Called "The 3 Rs," the program rewards divers for their efforts in preserving and appreciating Maui's pristine waters. On each inter-island dive charter, one diver receives Lahaina Divers' Marine Awareness Award, a custom-designed T-shirt celebrating the local reef environment.

"The 3 Rs" program is comprised of three elements: 1) Reef cleanup; 2) Recycling; and 3) Responsibility. Over 800 Lahaina Divers guests take part in daily reef cleanup exercises each month at more than 30 dive sites around Maui, Molokini and Lanai. Then, all items used on board Lahaina Divers' charters are recycled, with the proceeds being donated to a local elementary school's recycling drive. Finally, participating divers make a commitment to take responsibility in their diving practices, which includes maintain-

ing proper buoyancy over reefs to prevent coral damage and exhibiting non-threatening interactions with the marine life described in each pre-dive briefing.

If you would like to be a part of Lahaina Divers' Marine Awareness Team, contact Blain or Kim Roberts at 710 Front St., Lahaina; (800) 657-7885.

## BVI Winter Dive Packages Offered by Ramada Nanny Cay Resort

Between now and March 31, 1991, the Ramada Nanny Cay Resort & Marina on Tortola, British Virgin Islands, is offering a variety of diving packages, including five two-tank dives, three two-tank dives and a resort course that includes instruction plus three full dives.

Each of the programs runs seven days/six nights. They are priced \$660, \$550 and \$490, respectively, through December 15, 1990, and \$900, \$790 and \$740, respectively, from December 16 to March 31, 1991. All rates are based on single occupancy. Packages may also be booked at reduced rates for non-diving companions.

For more information, contact your travel agent or Ramada Intl. at (800) 228-9898.

## Peter Hughes Diving/Divi Resorts Offer Off-Season Dive Promotions

Peter Hughes Diving and Divi Resorts offer a variety of special winter promotions for divers booking packages to Bonaire, Cayman Brac and Nassau, Bahamas.

Bonaire-bound divers heading for the Divi Flamingo Beach Resort from January 2 to April 5, 1991, can purchase an all-inclusive dive package for \$1,108 that includes seven nights accommodations, six days of unlimited diving, three meals daily, unlimited beverages, airport/hotel transfers and all tax and service charges. Or, Divi Flamingo basic dive packages begin at \$699 per person and include seven nights accommodations and six days of diving, but meals, beverages, taxes and service charges are not included.

If you're thinking of heading to Cayman Brac between January 2 and April 5, 1991, you can book a seven-night all-inclusive dive package at the Divi Tiara Beach Resort for \$1,328 per person, double occupancy. The package includes six days of diving.

Finally, you can fly free to the Bahamas by booking a five-night dive and meal package at the Divi Bahamas Beach Resort from January 2 to March 28, 1991. Included are round-trip air fare from Miami, air-conditioned accommodations, four days

of diving, three dinners, five breakfasts, airport/hotel transfers, taxes and service charges. Rates start at \$899 per person, double occupancy.

For more information about any of Divi Resorts' packages call (800) 333-3484.

## Church Photography Courses Offered Aboard the Aggressor Fleet

Jim Church has scheduled three multi-level underwater photography courses for 1991. They will be held January 19-26 aboard the *Antilles Aggressor*, January 26-February 2 aboard the *Bay Islands Aggressor* and February 23-March 2 aboard the *Cayman Aggressor III*.

Church's full-service courses are designed for both beginning and advanced still photographers. Video instruction is included on request. For more information, write the Aggressor Fleet, Ltd., P.O. Drawer K, Morgan City, LA 70381; (800) 348-2628.

## Frenchman's Reef Beach Resort Announces Winter Dive Packages

The Frenchman's Reef Beach Resort in St. Thomas, U.S. Virgin Islands, is offering all-inclusive dive packages from December 21, 1990, through April 14, 1991.

The packages, available to certified divers only, include ocean view rooms; breakfast or lunch and dinner; beverages (five drinks per person daily); plus other amenities. Divers staying for five days get two two-tank dives with equipment, and those staying for seven nights get four two-tank dives with equipment.

The all-inclusive packages are priced at \$1,225 per person, double occupancy, for six days/five nights, and \$1,797 per person, double occupancy, for eight days/seven nights. Rates do not include air fare or transfers.

Frenchman's Reef Beach Resort has 520 rooms, five restaurants and nine bars. For more information, contact Frenchman's Reef Beach Resort at (800) 524-2000.

## Cozumel Reacts to Bad Press with New Diving Regulations

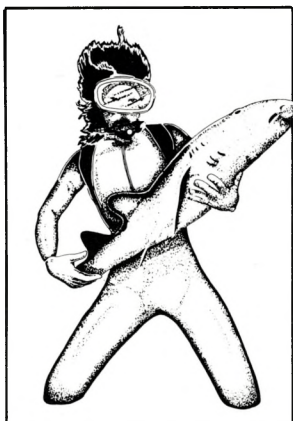
As part of an island-wide effort to standardize and maintain optimal diving practices on Cozumel, the newly formed Cozumel Association of Dive Operators has established a set of safety diving regulations that will apply to all dive visitors.

The new regulations are as follows:

1. Visiting divers should present their logbooks along with their certification cards so their expertise levels can be better evaluated.

Continued





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## DIVE TRAVEL NEWS

2. All people who are not certified, but have completed a resort course, must dive with an instructor and to a maximum of 30 feet deep, whether diving from shore or from a boat.

3. No alcohol should be ingested before or between dives.

4. Safety stops should be made at 15 feet for three minutes on any dive.

5. Divers visiting Cozumel for one day should make shallow dives only (less than 30 feet).

6. All personal gear should be professionally checked before arriving in Cozumel.

7. All divers should carry a pressure gauge, depth gauge, buoyancy compensator and safe second.

8. Divers descending to more than 80 feet should keep their dives to under 25 minutes.

9. The first dive during each trip to Cozumel should be an evaluation beach dive with an instructor.

10. All ascents should be slow and toward shore.

Cozumel's new diving association also advises that all divers use the recreational dive planner (RDP) and dive in groups that have similar experience levels.

Cozumel, located in the Caribbean, is Mexico's largest inhabited island and has long been known as one of the world's great diving destinations. However, over the past year a number of dive injuries and deaths as well as accusations of a lack of professionalism among some dive operators have caused a wave of bad press to tarnish the image of the popular diving destination.

### Lady Moore Sunk off Andros Island for Dive Visitors

Andros Island has a new shipwreck. Last May, the *Lady Moore*, a 125-foot mail boat, was sunk off Morgan's Bluff on North Andros as a new scuba diving site for Andros Undersea Adventures' scuba divers. The *Lady Moore* now rests in 80 feet of clear water, providing a perfect dive site beginning in 40 feet.

Marine life moved into the wreck immediately. Within the first month two three-foot barracudas, a five-foot nurse shark, several groupers and schools of bar jacks and silversides called the *Lady Moore* home.

For more information on how to dive the Bahamas' newest shipwreck contact Andros Undersea Adventures, P.O. Box 21766, Ft. Lauderdale, FL 33335; (800) 327-8150. □



# Palos Verdes: The All-Purpose Peninsula

Article and photos by Joe Belanger

*Whether your pleasure is wreck diving or spearfishing or underwater photography or bug hunting, this South Coast dive site has it all.*

All along the Pacific Coast you can find lots of great places to enjoy wreck diving, or to partake in some spearfishing, or perhaps to capture some stunning underwater photographs. But finding a diving area that offers all of these underwater pastimes can be a difficult order to



*The wreck of the Avalon. A number of ships ended their days in the waters off Palos Verdes.*

fill. That is, of course, unless you head for the Palos Verdes Peninsula.

From Palos Verdes Point to Flat Rock Point thick kelp embraces small reef formations. From Flat Rock Point to Veteran's Park it is mostly sandy bottom. Both sections of coastline offer outstanding opportunities for photography, wreck diving or halibut and lobster hunting.

#### **COLORFUL SEA LIFE MAKES FOR GREAT MACRO PHOTOGRAPHY**

The Palos Verdes Peninsula has some of the healthiest kelp beds in Southern California, and they are home to a variety of fascinating animals. Big hairy hermit crabs scamper along the bottom. Nudibranchs like the Spanish shawl and the sea lemon join in a vibrant color coalition with sea anemones in red, pink, orange and green pastels.

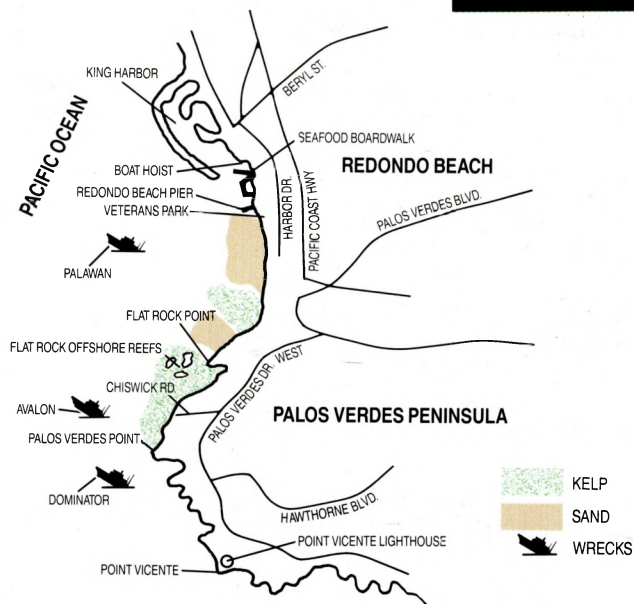
One unusual critter I recently ran into along the peninsula was a stiff-footed sea cucumber. Up close, it looked like white tropical soft coral, but it was actually brittle. Moving in and out of each branching appendage were orange tube feet.

#### **Palos Verdes Fish & Game Regs CALIFORNIA HALIBUT**

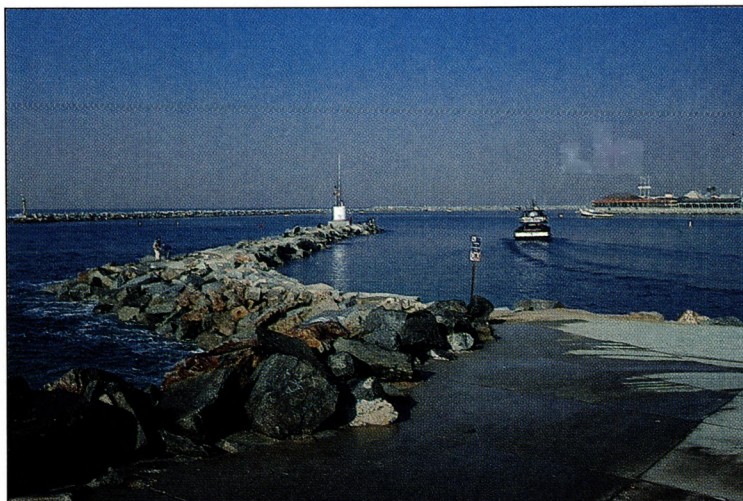
Limit: Five.

Size: 22" total length.

Season: Year-round.



*King Harbor is only about four miles from the prime diving grounds.*





Every time I approached the animal, the tube feet retracted and turned the brittle casing white. When I backed off, it extracted its tube feet and turned the casing orange again. It was quite a sight.

On the outskirts of Flat Rock Point there are a number of scattered reefs that get very little diver traffic. Out here the quantity of macro photo subjects is much greater than those farther inshore. And for some reason, nudibranchs like sea lemons are noticeably larger than those found closer to shore.

#### PRIME HUNTING GROUNDS FOR HALIBUT AND LOBSTER

Because the waters around Palos Verdes provide such a healthy food chain, game animals are abundant. Halibut hunters prowling the sand flats often surface with near-record-breaking catches, especially during the spring and fall months. But it seems most hunters come to the Palos Verdes Peninsula for lobsters.

Throughout the area kelp beds blanket reefs that are pockmarked with shallow holes. There are also small artificial reefs made up of toilet bowls and scuba tanks and abandoned lengths of pipe, many of which are loaded with lobsters.

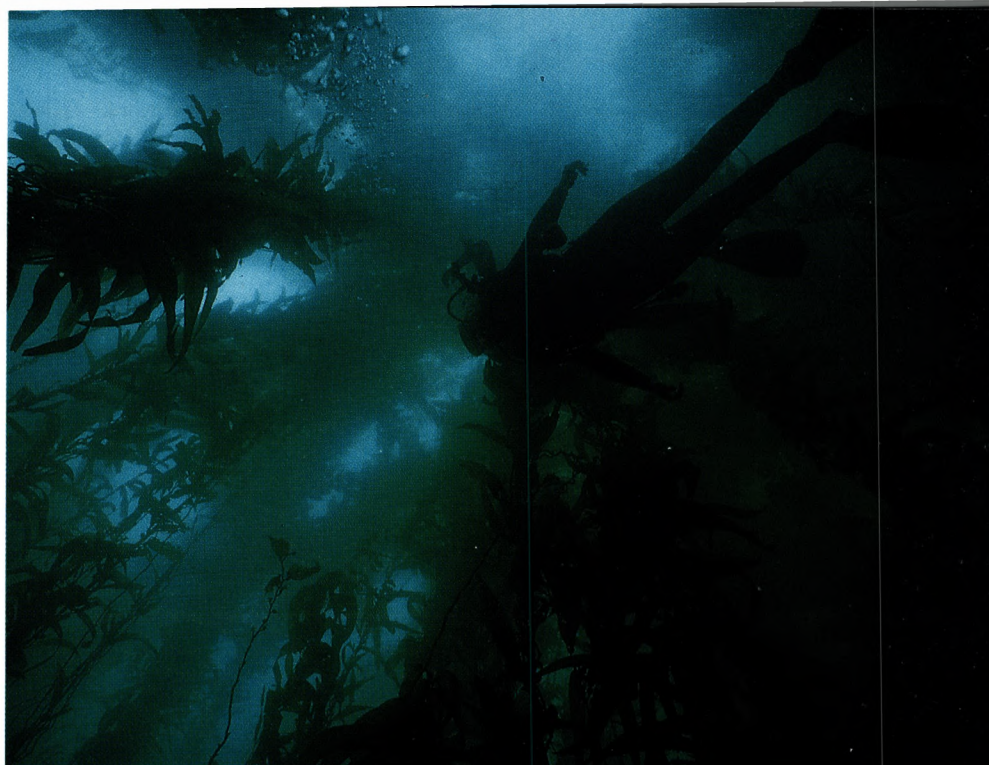
A friend and I once unsuccessfully searched the sand flats for the toilet bowl reef, and we were about to give up on finding any lobsters when my partner tapped my shoulder and pointed to a pipe 10 feet long and about 18 inches wide sitting on the sandy bottom. As we approached, we found *five* big bugs sitting in that pipe just waiting to climb into our game bags. So don't give up just because you can't find a particular hunting area. There are surprises to be found all over the bottom in the peninsula area.

#### SUNKEN MERCHANT SHIPS CREATE ARTIFICIAL REEFS

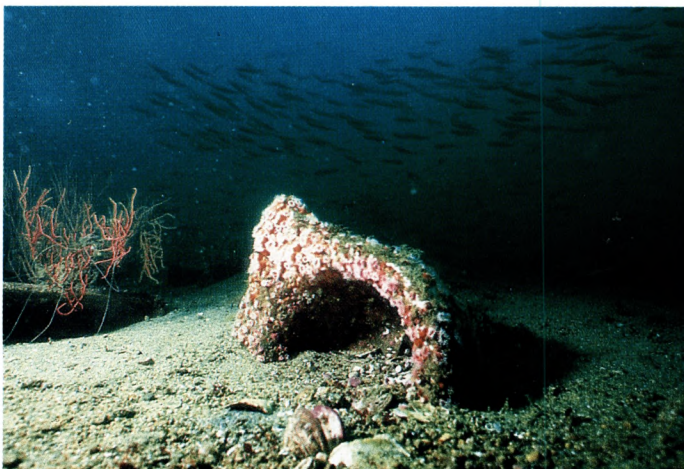
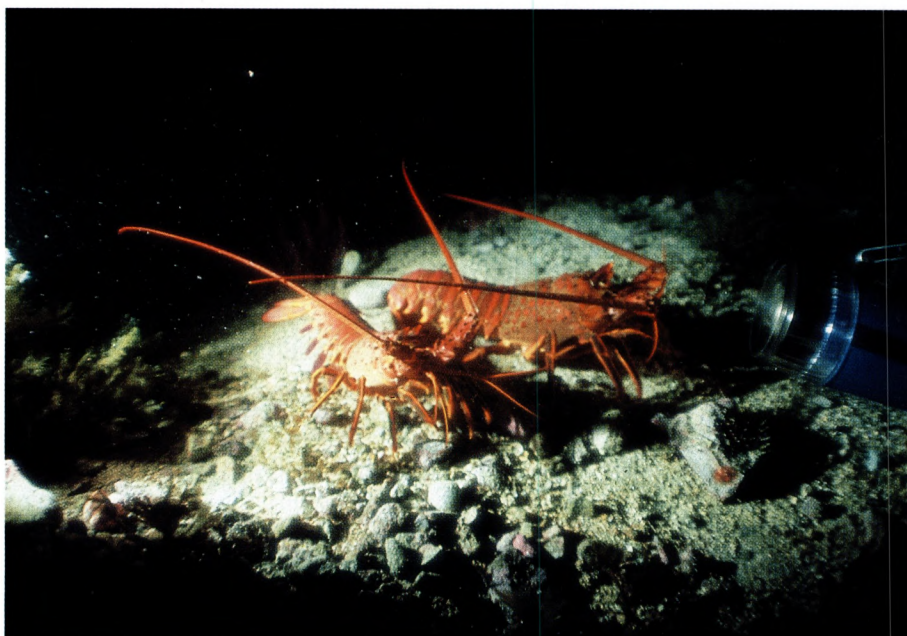
The waters off Palos Verdes used to be a passageway for merchant ships cutting between the mainland and Catalina Island heading for the Port of Los Angeles. Because storms have a tendency to churn up rough waters through this slot, some ships ended their days on the offshore rocks and reefs of the peninsula.

The *Avalon* is a 300-foot crane barge which sank in 1954. It lies in 60 feet of water just off Chiswick Road. Because of the shallow depths, this is one of the safest of all the wrecks in the Palos Verdes area. It still contains the crane that went down with the vessel.

There is also the *Dominator*, a grain vessel that ran aground on a shallow reef at



*Palos Verdes has some of the healthiest kelp beds in Southern California.*



*Above: Most hunters come to Palos Verdes for the lobsters. Left: Toilet Bowl Reef, a well-known lobster hangout.*



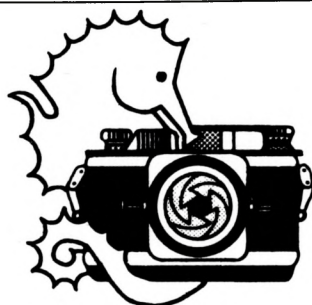
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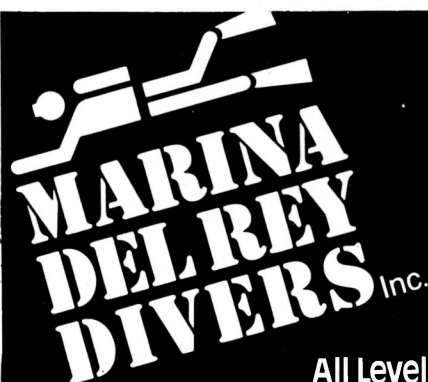


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Nov. 18	<b>Golden Doubloon</b> Catalina
Nov. 25	<b>Atlantis</b> Destination T.B.A.
Dec. 8	<b>Golden Doubloon</b> Catalina
Dec. 15	<b>Cee Ray</b> Destination T.B.A.
Nov. 10	<b>Deep Diver Specialty Class</b>
Nov. 10 & 11	<b>Advanced Class Weekend</b>
Nov. 12	<b>Rescue Class</b>
Dec. 1 & 2	<b>Advanced Class Weekend</b>

**Dive Club Meetings**  
**Nov. 13 & Dec. 11**



*The Point Vicente lighthouse overlooks a good portion of the Palos Verdes coast.*

Palos Verdes Point in 1962. Before a salvage and repair team could be organized, the ship took on water and the grain swelled up, ripping the vessel apart at the seams. Today, she lies in about 30 feet of water. A portion of the *Dominator* sticks out of the water, making it easy to find, but the wreck is nearly all rubble now due to its exposure to rough surface waters.

There are other wrecks in the area that were sunk as artificial reefs. One such wreck is the *Palawan*, a 300-foot Liberty ship that was donated to the State of California by the U.S. Government. She lies in about 120 feet of water and attracts an astounding variety of fish life, so much so that the wreck was once used as a mooring for a fishing barge. As such, *Palawan* is entangled with miles of monofilament line, so be sure to bring along your knife when you visit her.

For the most part, to get to the best diving along the Palos Verdes Peninsula you need a boat. The closest and most convenient place to launch a boat is at King Harbor in Redondo Beach, about a three to four mile boat ride from the diving grounds. (You can launch from the Cabrillo Beach boat ramp in San Pedro,



## Palos Verdes Dive Facts

**HOW TO GET THERE:** If traveling south, take Pacific Coast Highway into Redondo Beach. Turn right onto Beryl St. and follow it down to Harbor Drive. Turn left onto Harbor Dr. and take it to the Redondo Beach Marina (the big Marlin-shaped sign). Turn right into the parking lot. The hoist and seafood boardwalk are at the south end (left hand side) of the lot.

**GENERAL CONDITIONS:** The area is exposed and therefore susceptible to swells and choppy surface waters. Water temperatures range from 60 degrees in the summer to as low as 53 degrees in the winter. Visibility averages 15 to 20 feet but can reach 40 to 50 feet. The kelp is very thick so carry a knife. Also, a dive flag is a necessity. This is open ocean and non-diving boaters treat it that way.

**LOCAL RULES:** Nothing out of the ordinary. However, the laws governing the taking of game are *strictly enforced*, especially since the area is known as a hot lobster spot.

**DIVE SHOP:** Dive n' Surf, 504 N. Broadway, Redondo Beach, (213) 372-8423. It is located on the corner of Beryl and Broadway, just up the street from the boat hoist. Hours: Mon.-Fri. 9-7; Sat. & Sun. 8-6.

**ACCOMMODATIONS:** Hoist fees at Redondo Beach: up to 18 feet, \$20; 19 to 22 feet, \$25; 23 to 28 feet \$30. Fees include launching and exiting. The hoist cannot handle boats larger than 28 feet.

**DIVE BOATS:** Commercial dive boats out of San Pedro occasionally dive the Palos Verdes area. (Check the Dive Boat Schedules on page 56 of this issue.) However, usually any diving done in the Palos Verdes area is initiated by dive clubs who charter the boats.

which is cheaper, but you'll have to travel two to three times as far to reach the diving grounds.) Also, the use of a dive flag is critical when diving this area since boat traffic can get heavy.

Whether your pleasure is underwater photography, hunting or wreck diving, the Palos Verdes Peninsula can give you a good helping of all three. The biggest problem with diving the Palos Verdes Peninsula is simply figuring out what to do first. ☐

*Joe Belanger of Huntington Beach, California, is a free-lance writer and photographer as well as a professional diving instructor who holds a degree in marine science.*

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Photo by Steve Barsky



COME DIVING WITH  
PACIFIC DIVER!  
TURN TO PAGE 3 FOR  
DETAILS.



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141 West 22nd St.  
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# DIVE BOAT SCHEDULES

## MONTEREY

### Cypress Sea, 408/244-4433

Breakwater Cove Marina  
50/20 Divers/Capt. Tim Smith  
All trips to Monterey/Carmel areas.  
Available daily.

#### November:

- 3 A.M. Steele's Dive Store,  
415/682-5082  
P.M. Frank Barry Class,  
408/244-4433
- 4 A.M. McGuire Advanced Class,  
408/244-4433  
P.M. Anchor Shack,  
415/825-4960
- 10 Any Water Sports,  
408/244-4433
- 11 Scuba Schools of America,  
714/689-2422
- 17 A.M. Wallin Dive Store,  
415/369-2131  
P.M. John Nickel Class,  
408/244-4433
- 18 Anchor Shack, 415/825-4960
- 24 Ocean Odyssey, 916/758-3483
- 25 Rod Rodriguez, 415/657-1004

#### December:

- 1 Steele's Dive Store,  
415/682-5082
- 2 Barry Schirtzinger,  
408/244-4433
- 8 Any Water Sports,  
408/244-4433
- 9 Flipper Dippers, 408/280-1010
- 15 Wallin Dive Store, 415/369-2131
- 16 Anchor Shack, 415/825-4960
- 22 Ocean Odyssey, 916/758-3483
- 23 Available for Charter,  
408/244-4433
- 29 Lodi Skin Divers, 209/333-2343
- 30 Any Water Sports,  
408/244-4433

#### January:

- 5 Steele's Dive Store,  
415/682-5082
- 6 Any Water Sports, 244-4433
- 12 Open for Charter, 408/244-4433
- 13 Any Water Sports,  
408/244-4433
- 19 Wallin Dive Store, 415/369-2131
- 20 Anchor Shack, 415/825-4960

### Silver Prince, 408/394-4235

Monterey Wharf II  
40/15 Divers/Capt. Gary Goulart  
Call number above for open boats.  
Operates on weekdays upon request.

#### November:

- 3 A.M. Pinnacles Dive Center,  
415/897-9962
- 4 A.M. Valley Skin & Scuba,  
209/333-2343  
P.M. Olympic Dive & Travel,  
415/933-6045
- 10 A.M. Bamboo Reef,  
415/362-6694  
P.M. Aqua Marine, 408/748-5782
- 11 A.M. Get Down Divers,  
408/438-3795  
P.M. Olympic Dive & Travel,  
415/933-6045
- 17 A.M. Undersea Adventures,  
415/838-2348  
P.M. Pacific Offshore Divers,  
408/265-3483
- 18 A.M. Scuba Town, 415/939-3483
- 23 A.M. Open Boat
- 24 Scuba School of America,  
714/689-2422
- 25 A.M. Valley Aquatics,  
209/527-2822  
P.M. Scuba Plus, 209/957-2822

#### December:

- 1 A.M. Pinnacles Dive Center,  
415/497-9962
- 2 A.M. Valley Skin & Scuba,  
209/333-2343  
P.M. Olympic Dive & Travel,  
415/933-6045
- 8 A.M. Pacific Offshore Divers,  
408/265-3483
- 9 A.M. Scuba Plus, 209/957-2822
- 15 Bamboo Reef, 415/362-6694
- 16 Scuba Town, 415/939-3483



22ND ST. LANDING, SAN PEDRO

- 23 A.M. Open Boat  
P.M. Olympic Dive & Travel,  
415/933-6045
- 30 Undersea Adventures,  
415/838-2348

#### January:

- 5 Fremont Dive Center,  
415/657-1004
- 6 Open Boat
- 12 Undersea Adventures,  
415/838-2348
- 13 Olympic Dive & Travel,  
415/933-6045
- 19 Pacific Offshore Divers,  
408/265-3483
- 20 Valley Skindiving,  
209/333-2342
- 26 Bamboo Reef, 415/362-6694
- 27 Valley Aquatics, 209/527-2822

### Xeno, 408/426-7376

38/6 Divers/Capt. Jon Capella  
Available seven days a week.

## SANTA BARBARA

### Conception, 805/962-1127, 805/963-3564

Sea Landing Breakwater  
75/40 Divers/Capt. Jerry Boylan  
November:

- 1-3 Stu's Scuba Tours, 415/686-6111
- 4-6 Stu's Scuba Tours, 415/686-6111
- 8-10 Dive Utah, 801/394-8842
- 11-13 Sea Horse Scuba Center,  
707/552-8898
- 15-17 Just Another Great Dive,  
415/668-4326
- 18-20 High Sierra Divers (1/2),  
916/477-7642  
Dolphin Scuba (1/2),  
916/929-8188
- 22-24 Aqua Adventures, 818/848-2163
- 25-26 San Diego UPS, 619/460-4611
- 27-29 Dive Equip Co. of America,  
805/564-1923
- 30-12/2 Stu's Scuba Tours, 415/686-6111

#### December:

- 7-9 Dave Faught, 408/358-3221
- 14-15 Discovery Charters,  
818/790-8276
- 28-29 Truth Aquatics Dive,  
805/962-1127
- 30-1/1 Divers Corner, 213/869-7702

### Truth, 805/962-1127, 805/963-3564

Sea Landing Breakwater  
68/40 Divers/Capt. Bill Yznaga  
Call numbers above for open boats.

#### November:

- 1-3 Stu's Scuba Tours, 415/686-6111
- 4-6 Scott Adams, 415/223-0203
- 7-8 Pete Kanaan, 415/728-5544
- 9-10 Pacific School of Scuba,  
213/271-3999
- 11-12 Aquatics of Santa Barb.,  
805/964-8689
- 14 Open Boat
- 15 Open Boat
- 16-17 Hughes Scuba Club,  
213/324-8583
- 18-20 Aqua Divers, 916/671-3483
- 21 Open Boat

- 22-24 Wet Pleasure, 408/984-5819
- 25-27 Available for Charter,  
805/962-1127
- 28 Open Boat
- 29 Open Boat
- 30-12/1 Undersea Adventures (1/2),  
415/838-2348  
Truth Aquatics, 805/962-1127

#### December:

- 2-3 Fremont Dive Center (1/2),  
415/657-1004  
Sea & Ski (1/2), 805/683-5777
- 8-9 Any Water Sports,  
408/244-4433
- 30-1/1 Tom Campbell's Dive & Travel,  
805/965-4951

### Vision, 805/962-1127,

805/963-3564  
Sea Landing Breakwater  
90/40 Divers/Capt. Robbie Church

#### November:

- 1-3 Stu's Scuba Tours, 415/686-6111
- 4-6 Tom Campbell's Dive & Travel,  
805/965-4951
- 8-10 Scuba Discoveries,  
415/777-3483
- 11-13 Any Water Sports,  
408/244-4433
- 15-17 Marin Skin Diving, 415/479-4332
- 18-19 Dive Shop of Santa Maria,  
805/922-0076
- 20-21 UC Santa Cruz, 408/462-5409
- 22-24 Stan's Dive Shop, 408/294-7717
- 25-27 Nautilus Dive Center,  
916/624-3483
- 28-30 Howell's Dive Shop,  
916/241-3979

#### December:

- 1-3 Bill Finstad, 415/949-0344
- 8-10 Anchor Shack, 415/825-4960
- 11-17 Private Charter
- 27-29 Stu's Scuba Tours, 415/686-6111
- 30-1/1 Undersea Tours (1/2),  
503/884-2258  
Truth Aquatics (1/2),  
805/962-1127

## VENTURA

### Chieftain, 805/652-2166

Ventura Harbor  
50/20 Divers/Capt. David Rentfrow  
Supplies Dacor weightbelt systems.  
Call number above for open boats.

#### November:

- 2 Santa Cruz: Open Boat
- 3 Santa Cruz/Anacapa: Aqua  
Ventures, 805/484-1594
- 4 Santa Cruz/Anacapa: Gold  
Coast Scuba, 805/652-0321
- 7 Santa Cruz: Open Boat
- 9 Santa Cruz: Open Boat
- 10 Santa Cruz: Gold Coast Scuba,  
805/647-7121
- 11 Santa Cruz: Closed Charter
- 14 Anacapa: Open Boat
- 16 Santa Cruz: Open Boat
- 17 Santa Cruz: Open Boat
- 18 Santa Cruz: Closed Charter
- 21 Anacapa: Open Boat
- 23 Santa Cruz: Open Boat

- 24 Anacapa: Aqua Ventures,  
805/484-1594
- 25 Anacapa: Gold Coast Scuba,  
805/652-0321
- 28 Anacapa: Open Boat
- 30 Anacapa: Open Boat

#### December:

- 1 Anacapa: Aqua Ventures,  
805/484-1594
- 2 Santa Cruz/Anacapa: Closed  
Charter
- 5 Anacapa: Open Boat
- 7 Santa Cruz: Open Boat
- 8 Anacapa: Open Boat
- 9 Anacapa: Gold Coast Scuba,  
805/652-0321
- 12 Anacapa: Open Boat
- 14 Anacapa: Open Boat
- 15 Anacapa: Gold Coast Scuba,  
805/652-0321
- 16 Santa Cruz: Open Boat
- 19 Anacapa: Open Boat
- 21 Santa Cruz: Open Boat
- 22 Santa Cruz: Open Boat
- 23 Santa Cruz: Open Boat
- 26 Santa Cruz: Open Boat
- 28 Santa Cruz: Open Boat
- 29 Santa Cruz: Open Boat
- 30 Santa Cruz: Open Boat

### Liberty, 805/642-1233, 805/483-6612

Ventura Harbor Village  
85/40 Divers/Capt. Al Anderson  
Call number above for open boats.

#### November:

- 3 Anacapa/Santa Cruz: In-  
nerspace Divers, 805/399-1425
- 4 Anacapa/Santa Cruz: Blue  
Cheer, 213/828-1217
- 10 Anacapa/Santa Cruz: West  
Coast Divers, 818/708-8137
- 11 Anacapa/Santa Cruz: Marina  
del Rey Divers, 213/827-1131
- 17 Anacapa/Santa Cruz: Open  
Boat
- 18 Anacapa/Santa Cruz: Pt.  
Hueneme Aquatics,  
805/984-3483
- 24 Anacapa/Santa Cruz: Open  
Boat
- 25 Anacapa/Santa Cruz: Open  
Boat

#### December:

- 1 Anacapa/Santa Cruz: Open  
Boat
- 2 Anacapa/Santa Cruz: Open  
Boat
- 8 Anacapa/Santa Cruz: Open  
Boat
- 9 Anacapa/Santa Cruz: Open  
Boat
- 15 Anacapa/Santa Cruz: West  
Coast Divers, 818/708-8137
- 16 Anacapa/Santa Cruz: Open  
Boat
- 22 Anacapa/Santa Cruz: Open  
Boat
- 23 Anacapa/Santa Cruz: Open  
Boat
- 29 Anacapa/Santa Cruz: Open  
Boat

- 30 Anacapa/Santa Cruz: Open  
Boat

January:  
Not operating during January.

### Peace, 805/658-8286

Ventura Harbor Village  
65/32 Divers/Capt. Bill Magee, Mike  
Roach  
Call number above for open boats.

#### November:

- 1-3 World Sea Adventures,  
916/487-7433
- 4-6 Stanislaus Finmen,  
209/634-6367
- 7 Santa Rosa: Open Boat
- 8-10 Scuba Shop, 303/988-6725
- 11-13 Anderson's Dive Shop,  
415/355-3050
- 14 Santa Rosa: Open Boat
- 15-17 Anderson's Dive Shop,  
415/355-3050
- 18-20 Don's Dive Shop, 707/763-7428
- 21 Santa Rosa: Open Boat
- 24-25 Santa Monica Bluefins,  
805/499-6929
- 28 San Nicolas: Open Boat
- 30-12/1 San Nicolas: Open Boat

#### December:

- 2 West Coast Divers Supply,  
818/708-8136
- 5 San Nicolas: Open Boat
- 8-9 S-Star Instructional Group,  
213/456-4383
- 12 Santa Rosa: Open Boat
- 15 Channel Islands UPS,  
805/643-1404
- 16 TRW, 213/372-7764
- 19 Santa Rosa: Open Boat
- 22-23 Bugs R Us, 805/634-2530
- 29-31 Jack Lair, 707/255-1057

### Scuba Luv'er, 805/496-1014

Ventura Harbor Village  
65/34 Divers/Capt. Phil Bardini  
Call 818/346-4799 for Scuba Luv or open  
boats.

#### November:

- 2 Shark Dive: Scuba Luv
- 3 Anacapa/Santa Cruz: Scuba  
Luv
- 4 Anacapa/Santa Cruz: Scuba  
Luv
- 7 Midweek Special: Scuba Luv
- 9 Anacapa Arches: Scuba Luv
- 10 Day/Night Trip: Scuba Luv
- 11 Coastal Wreck Dive: Scuba Luv
- 14 Midweek Special: Scuba Luv
- 16 Shark Dive: Scuba Luv
- 17 Sport Chaleit, 818/790-9800
- 18 Anacapa/Santa Cruz: Scuba  
Luv
- 21 Thanksgiving Special: Scuba  
Luv
- 23 Thanksgiving Dive: Scuba Luv
- 24 Shark Dive: Scuba Luv
- 25 Local Coast Lobster Dive:  
Scuba Luv
- 28 Midweek Special: Scuba Luv
- 30 Shark Dive: Scuba Luv

#### December:

- 1 Santa Rosa: Scuba Luv
- 2 Anacapa/Santa Cruz: Scuba  
Luv
- 5 Midweek Special: Scuba Luv
- 7 Santa Cruz, Day/Night Dive:  
Scuba Luv
- 8 Santa Barbara: Scuba Luv
- 9 Anacapa/Santa Cruz: Scuba  
Luv
- 12 Midweek Special: Scuba Luv
- 14 Shark Dive: Scuba Luv
- 15 Santa Rosa: Scuba Luv
- 16 Blue Banks: Scuba Luv
- 19 Midweek Special: Scuba Luv
- 21 Day/Night Dive: Scuba Luv
- 22 Shark Dive: Scuba Luv
- 23 Anacapa/Santa Cruz: Scuba  
Luv
- 26 Midweek Special: Scuba Luv
- 28 Anacapa/Santa Cruz: Scuba  
Luv
- 29 Anacapa/Santa Cruz: Scuba  
Luv
- 30 Shark Dive: Scuba Luv



# DIVE BOAT SCHEDULES

## January:

- 2 New Year's Dive: Scuba Luv
- 4 Anacapa/Santa Cruz: Scuba Luv
- 5-6 Scuba Luv
- 9 Midweek Special: Scuba Luv
- 11 Shark Dive: Scuba Luv
- 12-13 Scuba Luv
- 16 Midweek Special: Scuba Luv
- 18 Anacapa/Santa Cruz: Scuba Luv
- 19-20 Scuba Luv
- 23 Midweek Special: Scuba Luv
- 25 Shark Dive: Scuba Luv
- 26-27 Scuba Luv
- 30 Midweek Special: Scuba Luv

## Spectre, 805/483-6612

Ventura Harbor Village  
85/36 Divers/Capt. Ted Cumming  
Call number above for open boats.

## November:

- 3 Anacapa/Santa Cruz: Santa Barb. Aquatics, 805/964-8689
- 4 Anacapa/Santa Cruz: Far West Marine, 805/495-3600
- 10 Anacapa/Santa Cruz: Blue Cheer, 213/828-1217
- 11 Santa Rosa: Channel Islands Scuba, 805/644-3483
- 16 Anacapa/Santa Cruz: No Game Day, 805/483-6612
- 17 Anacapa/Santa Cruz: Capt. Frog, 805/833-3781
- 18 Anacapa/Santa Cruz: Scuba Duba, 818/881-4545
- 23 Outer Islands: Explorer's Club, 805/483-6612
- 24 Anacapa/Santa Cruz: Open Boat
- 25 Anacapa/Santa Cruz: Scuba Duba, 818/881-4545

## December:

- 1 Anacapa/Santa Cruz: Open Boat
- 2 Anacapa/Santa Cruz: Far West Marine, 805/495-3600
- 7 Anacapa Game Reserve: No Game Day, 805/483-6612
- 9 Anacapa/Santa Cruz: Channel Is. Scuba, 805/644-3483
- 14 Outer Islands: Explorer's Club, 805/483-6612
- 15 Anacapa/Santa Cruz: Open Boat
- 16 Anacapa/Santa Cruz: Open Boat
- 22 Anacapa/Santa Cruz: Open Boat
- 23 Anacapa/Santa Cruz: Open Boat
- 29 Anacapa/Santa Cruz: Open Boat
- 30 Anacapa/Santa Cruz: Scuba Duba, 818/881-4545

## CHANNEL ISLANDS

### Sandy Bay, 213/828-2418

32/16 Divers/Capt. Bob Perry  
Call for available dates.

## PORT HUENEME

### Sea Ventures, 805/985-1100

Sportfishing Landing  
55/28 Divers/Capt. Mickey Defazio  
Call for available dates.

## SAN PEDRO

### Atlantis, 213/831-6666

22nd St. Landing  
65/35 Divers/Capt. Brian Dull

## November:

- 3 Sport Chalet, 818/790-9800
- 4 Ski & Sport, 714/633-1880
- 10 Sport Chalet, 818/790-9800
- 11 Black Barts Aquatics, 714/855-2323
- 17 B.E.N.T., 213/375-7121
- 18 Ski & Sport, 714/633-1880
- 24 Sport Chalet, 818/790-9800



VENTURA HARBOR VILLAGE

## 25 Sport Chalet, 818/790-9800

## December:

- 1 Sport Chalet, 818/790-9800
- 2 Ski & Sport, 714/633-1880
- 8 Sport Chalet, 818/790-9800
- 9 Pasadena Scuba, 818/796-2000
- 15 Sport Chalet, 818/790-9800
- 16 Black Barts Aquatics, 714/855-2323
- 22 Available for Charter
- 23 Available for Charter
- 29 Available for Charter
- 30 American Diving, 213/326-6663

## January:

- 5 Available for Charter
- 12 Sport Chalet, 818/790-9800
- 13 Available for Charter
- 19 Sport Chalet, 818/790-9800
- 20 Available for Charter
- 26 Pacific Sculpins, 213/494-2521
- 27 Pasadena Scuba & Travel, 818/796-2000

## Bold Contender,

818/366-2611

22nd St. Landing  
65/34 Divers/Capt. Jerry Shapiro  
Call for available dates.

## Cee Ray, 213/519-0880,

213/867-9738

22nd St. Landing  
65/34 Divers/Capt. Arnold Lancaster,  
Tom Matlock

## November:

- 3 Star of Scotland: Sport Chalet, 818/790-9800
- 11 Santa Barbara: Reef Seekers, 213/652-4990
- 17 San Nicolas: Sea Sabres, 213/947-0625
- 18 Catalina: Sport Chalet, 818/790-9800
- 24 Catalina: Sport Chalet, 818/790-9800

## December:

- 1 Catalina: Mariners, 714/821-3717
- 2 Santa Barbara: Sea to Sea, 714/825-2502
- 8 San Nicolas: Sea Sabres, 213/947-0625
- 9 Catalina: Sport Chalet, 818/790-9800
- 15 Marina del Rey Divers, 213/827-1131
- 16 Catalina: Sport Chalet, 818/790-9800
- 29 Santa Ana College, 714/693-8694

## January:

- 12 Sport Chalet, 818/790-9800
- 19 Sea Sabres, 213/947-0625
- 26 Sport Chalet, 818/790-9800

## Charisma, 213/832-8304,

213/326-7460

22nd St. Landing  
78/35 Divers/Capt. John Hess  
Call for available dates.

## Encore, 213/832-8304,

213/326-7460

22nd St. Landing  
78/35 Divers/Capt. Randy Beaver  
Call for available dates.

## Golden Doubloon,

714/963-4378

22nd St. Landing  
65/34 Divers/Capt. Greg Elliott  
(Charters exclusively to Catalina.)  
Call number above for open boats or charters.

## November:

- 3 Black Barts, 714/496-5891
- 4 Marina del Rey Divers, 213/827-1131
- 10 Divers Corner, 213/926-9482
- 11 Aquatic Center, 714/650-5440
- 15-17 Adventures in Scuba, 602/464-0183
- 18 Marina del Rey Divers, 213/827-1131
- 24 Catalina/Backside: Mr. Scuba, 714/838-6483

## 25 PACIFIC DIVER BOAT DIVE

DAY, 714/361-9765

## December:

- 1 Pacific Wilderness, 213/833-2422
- 2 Available for Charter, 714/963-4378
- 8 Marina del Rey Divers, 213/827-1131
- 9 Aquatic Center, 714/650-5440
- 15 Black Barts Aquatics, 714/496-5891
- 16 Marina del Rey Divers, 213/827-1131
- 22 Available for Charter, 714/963-3278
- 23 Available for Charter, 714/963-3278
- 29 Pacific Wilderness, 213/833-2422
- 30 Available for Charter, 714/963-3278

## January:

- 12 PACIFIC DIVER BOAT DIVE, 714/361-9765
- 19 Black Barts Aquatics, 714/496-5891
- 20 Available for Charter, 714/963-3278
- 26 Mr. Scuba, 714/838-6483
- 27 Marina del Rey Divers, 213/827-1131

## Magician, 213/548-6129

22nd St. Landing  
65/35 Divers/Capt. Ira Burdine  
Call number above for open boats.

## November:

- 3 Scuba Habitat, 714/594-7927
- 4 Catalina: Scuba Toys, 714/527-0430
- 10 Catalina: Scuba Haus, 213/828-2916
- 11 Catalina: American Diving, 213/326-6663
- 17 Catalina: Sport Chalet, 818/790-9800
- 18 Catalina: Divers West, 818/796-4287
- 24 Catalina: Sea to Sea, 714/825-2502
- 25 Outer Island: Scuba Toys, 714/527-0430

## December:

- 1 Catalina: Sport Chalet, 818/790-9800
- 2 Catalina: Scuba Toys, 714/527-0430
- 8 Catalina: Scuba Habitat, 714/594-7927
- 9 Catalina: Scuba Haus, 213/828-2916
- 15 Catalina: American Diving, 213/326-6663
- 16 Catalina: Divers West, 818/796-4287
- 22 Catalina: Harley Martin, 213/519-3477
- 5 Catalina: Open Boat
- 6 Catalina: Scuba Toys, 714/527-0430
- 12 Catalina: Scuba Locker, 714/653-1255
- 13 Catalina: Open Boat
- 19 Catalina: Open Boat
- 26 Catalina: Sport Chalet, 818/790-9800
- 27 Outer Island: American Diving, 213/326-6663

## Maverick, 213/547-3824

22nd St. Landing  
58/25-30 Divers/Capt. Floyd Bryan  
Call number above for open boats.

## Scuba Queen, 213/548-5324

Cabrillo Marina  
65/33 Divers/Capt. Ed Lord  
Listed charters destined for Catalina.  
Call for available dates.

## Westerly, 213/833-6048

22nd St. Landing  
55/30 Divers/Capt. Jim Ingram  
Call above number for open boats.

## November:

- 3 San Nicolas: Dive 'n Surf, 213/372-3483
- 4 San Nicolas: Mr. Scuba, 714/838-6483
- 10 San Clemente: Douglas Dive Club, 714/895-4076
- 11 Whalers Dive Club, 213/675-2123
- 16 Catalina Checkout: Dive 'n Surf, 213/372-3483
- 17 San Nicolas: John Roodenberg, 213/536-0404
- 18 Catalina/Backside: Dive 'n Surf, 213/372-3483
- 24 San Clemente: Dive 'n Surf, 213/372-3483
- 25 Begg Rock, Desert Divers, 805/948-6801

## Wild Wave, 213/534-0034

22nd St. Landing  
65/26 Divers/Capt. Mickey Pittman  
Call for available dates.

## LONG BEACH

### Mr. C, 213/831-9449

Long Beach Sportfishing  
50/40 Divers/Capt. Tom Rossin  
Call for available dates.

## Sundiver, 213/493-0951

Seaport Village  
53/28 Divers/Capt. Rich Wallace  
Call number above for open boats.  
Dates not listed are open for charter.

## November:

- 3-4 Outer Island: Openwater Habitat, 714/744-8355
- 9 Open Boat
- 7 Long Beach Breakwater (10 passengers)
- 10-11 Pacific Sporting Goods, 213/434-1604
- 14 Long Beach Breakwater (10 passengers)
- 17 Catalina: Pacific Sporting Goods, 213/434-1604
- 18 West Coast Divers, 818/708-8136
- 21 Long Beach Breakwater (10 passengers)
- 23 Open Boat
- 24-25 West Coast Divers, 818/708-8136
- 28 Long Beach Breakwater (10 passengers)

## December:

- 1 Farnsworth Bank: Len Tillim, 213/973-5175
- 2 Open Boat
- 8 West Coast Divers, 818/708-8136
- 9 Pacific Sporting Goods, 213/434-1604
- 15 Open Boat
- 16 West Coast Divers, 818/708-8136
- Sundiver will be operating out of Mexico through March 1991.  
Call for more information.

## AVALON HARBOR

### King Neptune, 213/510-2616

65/30 Divers/Capt. Bob Kennedy  
Call number above for open boats.

## November:

- 3 Private Charter
- 4 Private Charter
- 9 Catalina/Backside/Night Dive: Open Boat
- 10 Catalina/Frontside/Night Dive: Open Boat
- 11 Catalina: Open Boat
- 12 Farnsworth: Open Boat
- 17 Catalina/Night Dive: Open Boat
- 18 Catalina: Open Boat
- 21 Shark Dive: Open Boat
- 24 Catalina/Night Dive: Open Boat
- 30 Catalina/Night Dive: Open Boat

## December:

- 1 Catalina/Night Dive: Open Boat
- 2 Catalina: Open Boat
- 7 Catalina: Open Boat
- 8 Catalina/Night Dive: Open Boat
- 9 Santa Barbara: Open Boat
- 15 Catalina/Night Dive: Open Boat
- 16 Catalina: Open Boat
- 19 Shark Dive: Open Boat
- 22 Catalina/Night Dive: Open Boat
- 23 Catalina: Open Boat
- 24 Farnsworth: Open Boat
- 28 Shark Dive: Open Boat
- 29 Catalina/Night Dive: Open Boat
- 30 Catalina: Open Boat
- 31 Catalina: Open Boat

## SAN DIEGO

### America II, 619/584-0742

Islandia Sportfishing Landing,  
Mission Bay

35/17 Divers/Capt. Rich Cassens  
Call number above for open boats.

## November:

- 3 Wreck Alley: Open Boat
- 4 Wreck Alley: Open Boat
- 7 Lobster Diving: Open Boat
- 10 Wreck Alley: Open Boat
- 11 Wreck Alley: Open Boat
- 14 Kelp Forests & Wrecks: Open Boat
- 17 Wreck Alley: Open Boat
- 18 Wreck Alley: Open Boat

Continued



## DIVE BOAT SCHEDULES

RICK BAKER



- 21 Kelp Forests & Wrecks: Open Boat
- 24 Wreck Alley: Open Boat
- 25 Wreck Alley: Open Boat
- 28 Kelp Forests & Wrecks: Open Boat

### December:

- 1 Wreck Alley: Open Boat
- 2 Wreck Alley: Open Boat
- 5 Kelp Forests & Wrecks: Open Boat
- 8 Wreck Alley: Open Boat
- 9 Wreck Alley: Open Boat
- 12 La Jolla Kelp Forests: Open Boat
- 15 Kelp Forests & Wrecks: Open Boat
- 16 Pt. Loma Kelp Beds: Open Boat
- 19 Pt. Loma Kelp Beds: Open Boat
- 22 Wreck Alley: Open Boat
- 23 Wreck Alley: Open Boat
- 26 Kelp Forests & Wrecks: Open Boat
- 27 Kelp Forests & Wrecks: Open Boat
- 28 Kelp Forests & Wrecks: Open Boat
- 29 Kelp Forests & Wrecks: Open Boat
- 30 Kelp Forests & Wrecks: Open Boat
- 31 Kelp Forests & Wrecks: Open Boat

### January:

- 2 Kelp Forests & Wrecks: Open Boat
- 9 La Jolla Kelp & Wrecks: Open Boat
- 12 Wreck Alley: Open Boat
- 13 Wreck Alley: Open Boat
- 16 Kelp Forests & Wrecks: Open Boat
- 19 Wreck Alley: Open Boat
- 20 Wreck Alley: Open Boat
- 23 La Jolla Kelp Forests: Open Boat
- 26 Wreck Alley: Open Boat
- 27 Wreck Alley: Open Boat
- 30 Kelp Forests & Wrecks: Open Boat

### Bottom Scratcher,

619/224-4997

Pt. Loma Sportfishing  
63/28 Divers/Capt. C. Humphries

### November:

- 3-4 San Clemente: SSI, 602/995-5926
- 10 Coronados: SSI, 602/995-5926
- 11-13 San Clemente/Cortez: Aquatic Adventure, 209/578-0515
- 17 Coronados: Waterworld, 602/763-5531
- 18 Coronados: Adventures in Diving, 714/499-4517
- 23-25 San Clemente: SSI, 602/995-5926
- 26-28 San Clemente/Cortez: Weber County S&R, 801/773-8086

### December:

- 1 Coronados: SSI, 602/995-5926
- 2 Coronados: San Diego Divers, 619/224-3439
- 8 San Clemente: Adventures in Diving, 714/499-4517
- 15-16 San Clemente: SSI, 602/995-5926
- 22-23 San Clemente: SSI, 602/995-5926
- 27-28 San Clemente: SSI, 602/995-5926
- 29-31 San Clemente: SSI, 602/995-5926

### January:

- 5 Coronados: SSI, 602/995-5926
- 12-13 San Clemente: SSI, 602/995-5926

- 19-20 San Clemente: SSI, 602/995-5926
- 26 Coronados: SSI, 602/995-5926

### Horizon, 619/277-7823

H & M Landing

78/35 Divers/Capt. Greg Grivetto

### November:

- 3 Coronados: Sport Chalet, 619/224-6777
- 10 Coronados: Ski & Sport, 714/633-1880
- 17 Coronados: Sport Chalet, 619/224-6777
- 23-25 San Clemente: Sundiver, 602/996-7665

### December:

- 15 Coronados: Sport Chalet, 619/224-6777
- 16 Coronados: Sport Chalet, 619/224-6777
- 29-30 San Clemente: Sundiver, 602/996-7665

### Sand Dollar, 619/224-4997

Pt. Loma Sportfishing

65/28 Divers/Capt. Bill Johnston

### November:

- 3 Closed Charter
- 4 Coronados: Diving Locker, 619/272-1120
- 5-6 San Clemente/Cortez: Capt.

- Collett, 602/669-6141
- 10 Coronados: P&L, 602/343-1500
- 11 Coronados: Ocean Ent., 619/565-6054

- 12-14 San Clemente/Cortez: Max Grooms, 702/293-6648

- 17 San Clemente: Rick's Diving Locker, 619/746-8980
- 18 Coronados: San Diego Divers, 619/224-3439
- 19-20 San Clemente/Cortez: Del Mar Ocean Spts, 619/792-1903

- 24-26 San Clemente/Cortez: Pinnacles Dive Ctr., 415/897-9962

### December:

- 1-2 San Clemente: Scuba Science, 602/995-5926
- 8 Coronados: Diving Locker, 619/272-1120
- 9 Coronados: Ocean Ent., 619/565-6054
- 16 San Clemente: Del Mar Ocean Spts, 619/792-1903
- 27-28 San Clemente/Cortez: Sport Cove, 801/561-3538
- 29 Coronados: Diving Locker, 619/272-1120
- 30 Coronados: Ocean Ent., 619/565-6054

### January:

- 6 Coronados: Ocean Ent.,

619/565-6054

- 12 Coronados: Adventures in Diving, 714/499-4517
- 13 Coronados: Diving Locker, 619/272-1120
- 26 Coronados: Rick's Diving Locker, 619/746-8980
- 27 Coronados: La Jolla Divers, 619/459-2691

## WASHINGTON

### Sea Wolf, 206/293-4248

Cap Sante Boat Haven

55/118 Divers/Capt. Jess & Allan Starnes  
Available weekdays. Call above number for open boats or group charter information.

### November:

- 3-4 San Juan Islands: Open Boat
- 10-11 San Juan Islands: Open Boat
- 17-18 San Juan Islands: Open Boat
- 23-25 San Juan Islands: Open Boat

### December:

- 1-2 San Juan Islands: Open Boat
- 29-31 San Juan Islands: Open Boat

### January:

- 19-20 San Juan Islands: Open Boat
- 26-27 San Juan Islands: Open Boat

### Star Fire, 206/364-9858

Cap Sante Marina

54/24 Divers/Capt. Gordon Bradley

### November:

- 3-4 San Juans
- 10-11 San Juans
- 17-18 San Juans
- 23-25 San Juans

### December:

- 1-2 San Juans
- 8-9 San Juans
- 15-16 San Juans
- 22-23 San Juans

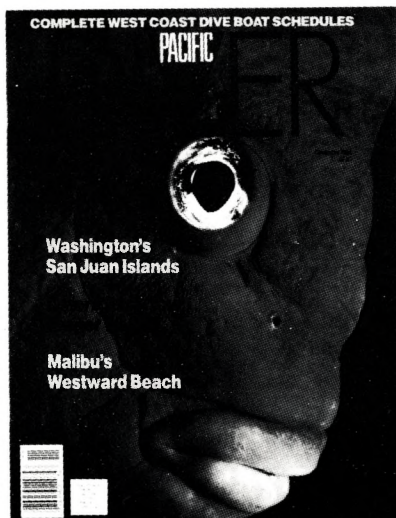
### January:

- 5-6 San Juans
- 12-13 San Juans
- 19-20 San Juans
- 26-27 San Juans

### Washington Diver I & II, 206/676-8029

21' & 27'6 Divers/Capt. Dennis Withner  
Available 7 days a week.  
Min. 4 divers to reserve boats or join open weekend charters.

# NOT JUST ANOTHER PRETTY FACE.



☐ Yes, I would like to take advantage of your special introductory offer. Send me 6 issues (1 year) of Pacific Diver for only \$14.95. (Regularly \$18.00 for 6 issues.)

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Address

City

State  Zip

☐ Payment enclosed

Sorry, we do not bill.

☐ Charge my ☐ Mastercard ☐ Visa ☐ Bill me

Account #  Expire Date

Signature

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DIVER

P.O. Box 2027  
Newport Beach, CA 92659-1027

2G90



## PRODUCT REVIEWS

### Sherwood's Genesis 80 Tank

What a concept. More underwater time combined with a less-obtrusive diving cylinder.

Sherwood's Genesis 80 steel tank is the same diameter as a standard aluminum 80 but substantially more compact. No big deal? On the contrary. Having a 3,500 psi, 80-cubic-foot air cylinder means not only that your time underwater can be extended, but that you can be more comfortable while enjoying those additional minutes at depth. Plus, by strapping this squat little tank to your back, you can walk around without the tank knocking against the backs of your thighs; you can lean against a sea rail without being knocked off balance; you can sit on a swim step without the base of the tank forcing your upper body forward; you can even set your tank and attached BC on a rolling deck without it tumbling over (not a recommended practice, but possible all the same).

The Genesis 80 uses a DIN valve. DIN valves have been used for years in Europe and are now gaining in popularity in the U.S. With its threaded design, a DIN valve is capable of sustaining much higher pressures and is considerably safer and more dependable than traditional O-ring-type valves. However, the DIN valve prohibits you from using a standard-yoke regulator with the Genesis 80 without installing a DIN adapter. Adapters are

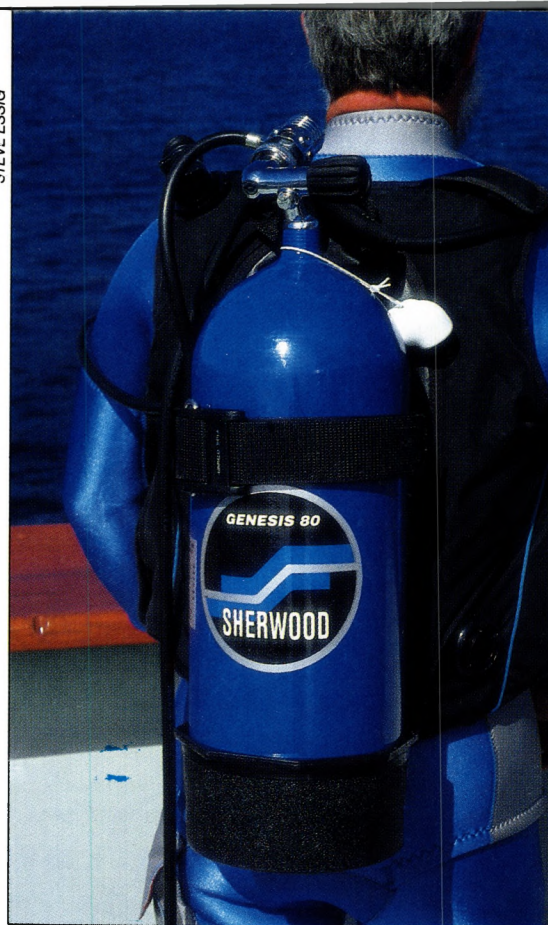
available from most manufacturers these days, and they're easy to attach: all you have to do is unscrew the yoke from your regulator first stage and screw on the DIN adapter. Sherwood offers a DIN adapter for about \$49 that will update all Sherwood regulators (ask for part number SA50300).

The steel Genesis 80 is about 4½ pounds lighter than traditional aluminum 80s, but is negatively buoyant in the water. We found that we could drop from one to two pounds from our weightbelt while diving with a Genesis tank. Consequently, the Genesis 80 creates a sort of double bonus: being lighter means you have less weight to haul around topside; being less buoyant underwater means you don't have to carry as much lead on your weightbelt.

I think we could all agree that one of the down-sides of scuba diving is having to deal with all the heavy, cumbersome gear. Fortunately, the trend throughout the diving industry appears to be toward designing scuba equipment that's safer, lighter, more compact, and easier to use — essentially, gear that does more for, while asking less of, the user. Sherwood's Genesis 80 is an excellent example of this trend. From where we stand it represents the future in tank systems.

The Genesis 80 is available in red, blue, yellow, black and pink, comes with a

STEVE ESSIG



*Increased air pressure combined with a compact size; it's the future in tank systems.*

lifetime limited warranty and sells for a suggested retail price of \$345. For more information, contact Sherwood West, 3 Chrysler, Irvine, CA 92718; (714) 581-1300. ★★★★★



STEVE ESSIG

*A lightweight, low-profile traveler's BC that, unfortunately, is not without its problems.*

### SeaQuest's Explorer BC

If you've done much dive traveling, you've probably found that when packing a dive bag for a two-week vacation, your BC always seems to take up a disproportionate amount of space. In part, it was to solve this problem that SeaQuest brought out its Explorer BC, a lightweight, low-profile, easily packed buoyancy compensator designed for warm-water dive travelers.

The beauty of the Explorer lies in its simplicity. There are no adjustable straps; you simply slip your arms through the sleeves and secure the padded cummerbund and you're ready to go diving. The BC provides 20 to 25 pounds of lift, depending upon what size of BC you happen to be wearing. In spite of the rumors suggesting that 25 pounds of lift is not enough to safely float an adult on the surface, we found that a medium-large

Explorer was able to float a 185-pound diver wearing eight pounds of lead without any problems whatsoever.

However, the problems of the Explorer also lie in its simplicity. By far its most irritating feature is its cummerbund adjustment design. Called the Multiset cummerbund, the only adjustment on the entire BC, it allows you to shorten or lengthen the cummerbund by unhooking a clip and reinserting it into one of three narrow pockets. In theory, you're only supposed to have to make this adjustment once — prior to your first dive. But in reality, you end up making — and re-making — this adjustment constantly. Why? Because the cummerbund clips that slip into the pocket channels so effortlessly slip out with just as little effort. Since there's no way to lock the cummerbund clips into place, with just the slightest provocation you risk having your cummerbund come apart on you.

Take the BC off and you've lost the adjustment. Change tanks and you've lost the adjustment. Just carry the BC and



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## PRODUCT REVIEWS

tank assembly over to the swim step and you've lost the adjustment. Make the mistake of wrapping the cummerbund a little too snugly around your waist and inhale just a little too fully, and *Pop! Pop!*, you've lost the adjustment.

This may sound petty, but it's both irritating and embarrassing to be blocking the entry gate of a dive boat while the deckhand helps you climb out of your BC so you can carefully put the thing back together again. It doesn't seem like it would be too hard to design some kind of clip lock that would secure the cummerbund adjustment into place.

Finally, the way the inflator hose attaches to the BC (by running the low

pressure hose through a velcro shoulder strap) tends to float the end of the inflator hose right in your face. Just letting the inflator hose float free turned out to be less of an irritant than having it banging against the corner of our mask throughout an entire dive.

In short, the Explorer certainly has a lot of potential as a first-rate travel BC. Many of its design elements are first-class. But unfortunately, there are still a few bugs that have to be worked out.

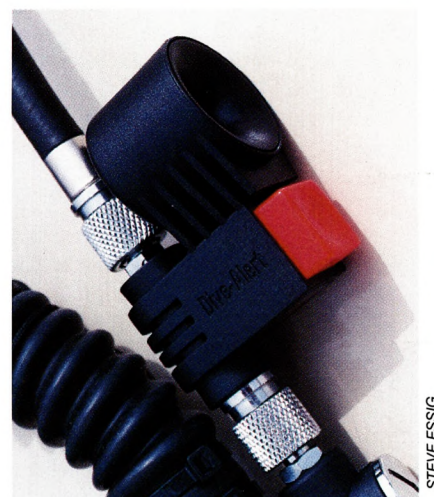
The Explorer comes in six sizes, from XS through XL, and retails for about \$330. For more information, contact SeaQuest, Inc., 2151-F Las Palmas Dr., Carlsbad, CA 92009; (619) 438-1101. ★★½

### Ideations' Signaling Device

Have you ever been in a situation where you surfaced too far from your dive boat and needed assistance and the only way you could attract the attention of the people on board was to blow a crummy little plastic whistle that nobody could hear? No? Well, neither have we, but we figure that if we ever do find ourselves in that position, instead of a crummy plastic whistle, we're going to want to have a Dive-Alert surface signaling device.

Actually, to say that this is a "surface signaling device" is like saying the *Queen Mary* "is kind of a big boat." Constructed of injection-molded reinforced thermoplastic, one end of the device snaps on to your low pressure hose and the other end snaps on to the power inflator on your BC via a quick-connect/disconnect fitting. Powered by a breath of compressed air from your tank, a push of the button delivers a piercing whistle that, according to the manufacturer, can be heard up to a mile away.

We believe it. After anchoring about a quarter-mile off Laguna's Beach's Shaw's Cove, we took the Dive-Alert into the water and gave it a try. We kicked a good 100 yards away from the boat, held the device up and pointed it toward the boat (never point this thing at yourself or at



To say this is an "attention-getter" is an understatement.

anybody close to you) and then we gave the button a little squeeze. The high-pitched whistle ripped through the atmosphere, struck the boat, pierced the ear drums of the photographer on board who started howling like a coyote, then it whipped around and rocketed to shore, bounced off the sandstone cliffs and just about knocked a lifeguard out of his tower chair.

Just for fun, we squeezed off a few more bursts, which by now had all the beachgoers (remember, they're standing over a quarter-mile away) looking out at us and wincing as if they were watching someone drag his fingernails along a chalkboard.

There's not a whole lot to say about this surface signaling device beyond the fact that it REALLY works. It's compact, it uses very little air, it attaches and detaches to a power inflator remarkably easy, and it will definitely get people's attention.

Dive-Alert retails for \$50. For more information, contact Ideations Design Inc., P.O. Box 99575, Seattle, WA 98199; (206) 281-0067. ★★★★★

### Pacific Diver's Product Review Rating System

- ★★★★★ Outstanding product. Real state-of-the-art perfection!
- ★★★★ A great product, making diving more fun, and a lot easier.
- ★★★ A good product. Solid and functional.
- ★★ A real disappointment
- ★ Forget about it.



## READER SERVICE

### APPAREL

1. **GURKEE'S INTERNATIONAL** — Chlorine and Saltwater resistant footwear.

### DIVE STORES

3. **BLACK BART'S AQUATICS** — Full dive store in El Toro.  
 4. **MARINA DEL REY DIVERS** — Sales, rentals and all levels of instruction.  
 5. **NATIONAL SCUBA** — Equipment sales, repair service and PADI Instruction.  
 6. **PACIFIC OFFSHORE DIVERS** — Full service dive store out of San Jose.  
 7. **PACIFIC SPORTING GOODS** — Full selection of dive products in Long Beach.  
 8. **SILENT WORLD** — Full facility dive store in Seattle, Washington.

### DIVE BOATS

9. **CLUB NAUTICO OF MONTEREY** — Boat charters and rentals: Powerboat rentals; 22-foot boats and 14-foot inflatables out of Monterey.  
 10. **THE DIVE BOAT 'PEACE'** — Dive boat out of Ventura, Southern California.  
 11. **GOLDEN DOUBLOON CHARTERS** — Dive boat out of San Pedro, Southern California.  
 12. **HORIZON** — Dive boat out of San Diego, Southern California.  
 13. **KING KAMEHAMEHA** — Dive Boat & Dive Store in Kailua-Kona, Hawaii.  
 14. **KONA AGGRESSOR** — Luxurious dive boat out of Kona, Hawaii.  
 15. **R. C. DIVERS** — Dive boat information out of San Diego.  
 16. **TRUTH AQUATICS** — Three custom dive boats out of Santa Barbara.

### EQUIPMENT

17. **BEUCHAT** — Complete line of diving equipment.  
 18. **DACOR CORPORATION** — Complete line of diving equipment.  
 19. **DIVE ALERT** — Divers' Airhorn. Send for color brochure.  
 20. **PELICAN PRODUCTS** — Full line of flashlights.  
 21. **PRINCETON TECTONICS** — Diving accessories. Send for product information.  
 22. **SCUDA** — Freedom from thirst, underwater drinking apparatus.  
 23. **SHERWOOD WEST** — Complete line of diving equipment.  
 24. **TABATA, U.S.A.** — Complete line of diving equipment.

### PHOTOGRAPHY

25. **ABC PHOTO** — Camera repair, rentals, service, sales and instruction.  
 26. **CAMERA TECH** — Camera repair, rentals, service, sales and instruction.  
 27. **JIM CHURCH UNDERSEA PHOTOGRAPHY** — Seminars on underwater photography plus exclusive trips.  
 28. **PACIFIC CAMERA SERVICE** — Nikonos specialist, free information on lens, camera and flash repair.

### RESORTS & TRAVEL

28. **HOTEL PUNTA PESCADERO** — A Baja resort hotel paradise, located between Cabo and La Paz.  
 29. **SMALL HOPE BAY LODGE** — Twenty beach front cottages on Andros Island, Bahamas.  
 30. **LAHAINA DIVERS** — Dive boat, dive store

and packages in Maui.

31. **KONA COAST DIVERS** — Dive boat, dive store and packages in Hawaii.

32. **AQUATICS KAUAI** — Dive boat, dive store and packages in Kauai.

### TRAINING & EDUCATION

33. **NAUI** — NAUI leadership training, instructor, divemaster, skin diving leader.  
 34. **SANTA BARBARA CITY COLLEGE** — 8-Page brochure and handout on their marine technology program.  
 35. **STAN'S SKIN DIVING SHOP** — Information on dive boats and certification programs.

### MISCELLANEOUS

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**Fragile Star**  
***Linckia columbiae***  
**Phylum: Echinodermata**  
**Class: Stelleroidea**  
**Subclass: Asteroidea**

*Article and photo by  
 Scott Sansenbach*

Most divers probably already know that sea stars are capable of regenerating lost limbs. But the fragile star is a starfish species that outshines all the rest when it comes to regeneration, because it is actually able to grow an entirely new body from a single arm.

Unlike some animals which use their regenerative abilities solely as a defensive mechanism, the fragile star can also use it as an alternative to sexual reproduction. When conditions for sexual reproduction are not favorable, the fragile star can build local populations by breaking off arms which then regenerate into complete individuals. It takes an adult about six months to replace an arm, and a single arm about one year to grow a new body. In any fragile star population about 50 to 80 percent of the animals are in the process of regenerating lost parts.

The fragile star, also known as the variable star and the Pacific comet star, measures about three to five inches across and is a mottled red and gray in color. It normally has five arms, but individuals have been known to have up to nine arms. Healthy fragile star populations are usually

found in areas where the water is warm. In Southern California they are common around San Clemente, Catalina and the Coronado islands. However, they have been seen as far north as Santa Cruz Island and as far south as the Galapagos. Fragile stars have no known predators.

Fragile stars are found intertidally to depths of 240 feet, most commonly on rocky reefs in close association with coralline algae. They will often contort their bodies into bizarre shapes to fit into the nooks and crannies of the reef. Fragile stars feed on microscopic organisms as well as on detritus (dead and decaying material) and possibly on some types of bryozoans. Like most starfish, fragile stars consume food by inverting their stomachs.

In the world of nature, remarkable adaptations are commonplace, yet what continues to be amazing are the remarkable strategies used by even the most humble of creatures to ensure their survival.

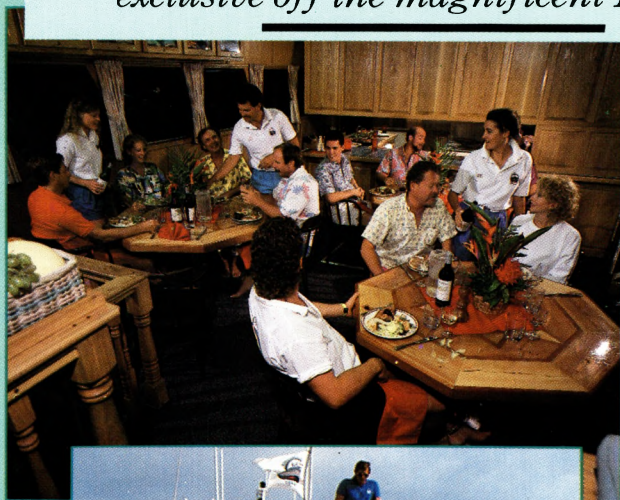
(Thanks to Dr. Florence McAlary of Cypress College for her contributions to this article.) □

*Scott Sansenbach is a free-lance writer and photographer living in Anaheim, California.*





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